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PART IV.

Dawn Society Prize-Distributon Ceremony.

[*Reprinted from the Bengalee of August 1, 1905.*]

The third annual prize-day of the above Society was held under the presidency of Sir Gooroo Dass Banerjee, Kt. on Sunday, the 30th July last, at 5-30 P. M. at the University Institute Hall, the proceedings lasting for over two hours. There was an immensely large attendance. Among those present we noticed Mr. N. N. Ghose, F.R.S.L., Sister Nivedita, Sister Christiana, Hon. Mr. J. Choudhury, Mr. R. N. Mukerjee, Babu Kristo Kumar Mitter, Kaviraj Upendra Nath Sen, Rai Chuni Lall Bose Bahadur, Babu Charu Chandra Ghosh, Pundit Nil Kanto Goswami, Dr. P. K. Acharjee, M.B., Professor Kali Prosonno Bhattacharjee M. A., Babu Shyama Sundar Chakrabarty, Professor Upendra Nath Maitra and the Secretary Babu Satish Chandra Mukerjee.

Mr. Ratcliffe, Editor of the *Statesman*, who h[illegible] been announced as one of the speakers on the occasion, sent the following letter . -

" Dear Mr. Ghose,—I much regret I am obliged to ask you to excuse me to the meeting, this afternoon on account of indisposition I started to come a few minutes ago, but found it necessary to come back.—Very sincerely yours, S. K. Ratcliffe."

A large number of book prizes and prizes in indigenous articles and three medals (one gold) were exhibited in large racks and formed an imposing sight The number of prize-winners in the General Section of the Society was nine and in the Magazine Section, ten. The winners in the former Section were from among the local workers of the Society; and those in the Magazine Section belong to different parts of India (many of whom received their prizes by proxy) one from Bhavnagar (Gujarat), another from Chingleput in the Madras Presidency, a third from Bombay City, a fourth from Pabna, a fifth from Tamluk and so on. The work in the Magazine Section consisted, mainly of collecting materials and information about the condition of the people in villages, towns and districts which were specially known to the workers. In the Industrial Section the prize consisted of articles valued at over Rs. 100 and the winners were all student purchasers from the Industrial Section and were *not* necessarily members of the Society or residents of Calcutta.

Among the prize-donors are Sir Gooroo Dass Banerjee, Dr. Rash Behary Ghosh, C. I. E., Hon. Mr. Justice Ashutosh Mukerji, Dr. J. C. Bose, M. A., D.

Sc., C. I. E , Babu Hirendranath Dutt, Hon. Mr. J. Chowdhuri (Indian Stores), Messrs. K. B. Sen and Teckchand., merchants, and several other leading gentlemen of Calcutta.

We have not the least doubt that the Society is really doing a very good work in training not only local students in its classes but also moffussil students through the medium of the magazine Mr. N. N Ghose, F.R.S L., Sister Nivedita and Sir Gooroodas who spoke at the meeting bore ample testimony to the above fact. The same opinion is expressed by our illustrious countryman Dr. J. C. Bose, M A.,D. Sc , in the following letter to the Secretary :—"Dear Satis Babu—I always regret that owing to pressure of work I am not able to come to your meeting and see your Dawn students, but I read your magazine and I am keenly interested in your work I am proud of your boys and the results they produce. As a small expression of my deep regard, I shall send you twenty-five rupees to be used in prizes or in any other way you like, if you will send a peon to take the contribution on Monday evening. Yours very faithfully—J. C. Bose."

The proceedings of the meeting opened with a short speech from Sir Gooroo Das Banerjee, calling upon Mr. N. N. Ghose, the Permanent President, to give an account of the work of the Society for 1904. After giving a general idea of that work, Mr. Ghose went on to remark that the Society had been able to establish its position as a recognised institution, that it was altogether unique in its character and deserved ample support. Sister Nivedita followed and spoke most eloquently for about three-quarters of an hour on the importance of the national work for Indians at this the turning-point of the 20th century. She also commented favourably on the spirit of work displayed by the Society,—work in various directions which have but one goal, the making of its members better workers for the country Sir Gooroo Das Banerjee concluded the proceedings with a forcible speech lasting for over half-an-hour, and brought into strong relief the true importance of the work done by the Dawn Society.

Sir Gooroo Dass Banerjee's Speech.

After making certain prefatory remarks as to the speech of Mr. N. N. Ghose, being admirably forcible and lucid and the audience being particularly orderly, the worthy President went on :—

In the first place, I express my heart-felt sympathy with the objects of the Dawn Society. Next let me convey to the earnest and indefatigable Secretary, my esteemed friend, Babu Satis Chander Mukerjee, and to Mr. N. N. Ghose, the Permanent President of the Society, my hearty congratulations on the success and for their self-sacrificing and earnest exertions in the cause of improving the rising generation of the country I shall in the next place, commend, by force of my feeble voice, the Dawn Society to the sympathy and support and patronage of the public.

It is not merely my respect for the persons who are the life and soul of the Society, (great as the respect is, deep as the feeling of respect is), but I have a great admiration for the work of the Society under their control and guidance. I feel that I ought to admire the work of the Society and commend the Society to my countrymen; and my reasons are, shortly stated, *two* :—I admire the Society, in the first place, for the range of its work. I admire it in the next place, for the efficiency of its methods. Education, I need hardly remind you, consists not merely in storing the mind of the pupil with ordinary knowledge; it consists also in calling forth all powers of the pupil, physical, intellectual and spiritual, into healthy and harmonious exercise. Indeed, and as it is often lost sight of, this latter is more important; for life is but short and student life is shorter still, while art is long, and you must instil into the mind of the pupil, during this short period of studentship, a knowledge of only a fraction of necessary and important truths. Of far grater importance is it which seeks to call forth the powers of the student, into a healthful and harmonious exercise, so that they might stand him in good stead when these powers have been properly trained. Notwithstanding all our efforts to raise the standard of education, that standard will never be raised by pompous syllabuses, as printed in the University Calendar, which might be crammed through,—unless the education, that we impart, succeeds in training the faculties of the student. And herein, I find the importance of the Dawn Society, in its different sections—literary, moral and religious—Industrial, Magazine and Business sections. At college or school, it is only the intellectual education that is imparted. There are various reasons why religious instruction cannot be imparted and there is hardly any time for imparting any practical, industrial, or economic education, except in technical schools. The Dawn Society seeks to supplement the education imparted in Colleges and schools; not only in the Moral and Religious, and Industrial Sections, but also in the Literary Section. In that very Literary Section, the work of a kind is done the like of which is seldom found in our schools and colleges. What is the result? The result, you have already been told, has been this that some of the best workers of the Dawn Society have been some of the best students of the University. (*Loud applause.*) There was some apprehension lest the work of the Dawn Society might draw off the energies of the student community from their proper work at college or school, and make them search for shadows to the neglect of searching for the substance. That is not so. In the Dawn Society a line of work is followed, not of the least responsibility but of the greatest responsibility, where true work is done and true work is shown by real workers It is in this direction, where there is lack of encouragement, that the Dawn Society has been working and is deserving all commendation. (*Loud applause.*) There is only one small hint, which I would throw out. It is this. May it

not profitably attach to its Literary Section a small library for the voluntary reading of the students of the Dawn Society, in addition to their voluntary writing ? I have no ambitious idea of a big library like the great Museum or the Imperial Library. My ideas are far more modest,—a small library, embodying only the master-pieces of the world's literary productions. For the first hundred books of John Lubbock will do for this. Let the voluntary readers, connected with the Dawn Society, concentrate their attention upon the reading of these immortal volumes instead of spending their time in reading third-class books.

My second reason is the *efficiency of the method* adopted in the Dawn Society. What is the capital of the Society ? How was it brought into existence ? How long has it been in existence ? What *quantum* of work has it already done ? These works are more eloquent than any eloquent advocacy. The capital of the Dawn Society, from the ordinary point of view, is not collected, as in other Societies, from subscriptions from members. Here I have been told by the Permanent President of the Society, and the rules will show this, that no subscription is collected from members. The Society has not come into existence under the patronage of any great millionaire. Government aid is, of course, quite out of the question. Self-help, though not declared, is the silent motto of the Society. What is the real capital ? India has always been a country of the aristocracy of intellect. The capital of the Dawn Society is, as it should be, not a sordid pecuniary capital, but a capital of intellect, massive intellect, well-directed and well-balanced, like, I may be pardoned for saying, the intellect of the learned gentleman on my right (Mr. N. N. Ghose, Permanent President) and the learned gentleman on my left (Babu Satis Chandra Mukerjee, Secretary). Nor must I omit to couple with it the cumulative intellect of the worthy workers, the members of the Dawn Society. (Cheers.) May that capital go on increasing and gathering and gathering and then the Dawn Society will never want any capital. The efficiency of the method of the Dawn Society consists, in the first place, in its rating pecuniary capital at [illegible] low worth, and rating the capital of intellect at its proper high [illegible] reason of my admiration is its disregard of all [illegible] do not undervalue discipline. To make ma[illegible] cipline should be enforced, not from withou[illegible] law-giver Manu says :—"Whatever is subject [illegible] a source of pain, and whatever is subject to our c[illegible] pleasure." Training, discipline, education, whate[illegible]quires hard work. There has been no royal road to learning [illegible] discovered. Nevertheless the great educators, Manu, and Pestalozz[illegible]au, Horn Tooke in later-times, have been anxious to give up force and [illegible]ercion. There is, of course, one important element,—the element of the force of personal example,

so long as the Dawn Society works under the guidance and control of my friends on my right (Mr. Ghose), and left (the Secretary). I hope, you my young friends, you will be increasing your spirit of work, and you will always be vindicating the spirit of your leaders of the Dawn Society.

The Dawn Society's Exhibition.

Reprinted from the Bengalee and the Amrita Bazar Patrika, July 17, 1905.

The Dawn Society's Exhibition.—Of knitting hand-machines and hand-looms held no Sunday last was attended by over 3000 persons, among whom we noticed Mr. Havell, and several other European gentlemen; many Marwari gentlemen; Babu Narendra Nath Sen; Hon'ble Babu Bhupendra Nath Bose; Sister Nivedita; Rai Bahadur Chuni Lal Bose; Kumar Sarat Kumar Ray M.A., of Dighapatia; Babu Kunja Bihari Sen; Babu N. C. Mukerji of the Indian Stores; Dr. Pran Krishna Acharya; Dr. Indu Madhab Mallik and others.

Mr. Havell was good enough to deliver a short speech in which he insisted on greater work and less talk and eulogised the practical work the Dawn Society was doing. He recommended the opening of a weaving school in Calcutta and he had hopes that such a school would soon be started by the Government. Babu Kunja Bihari De, of the firm of Messrs K. M. De & Co., Calcutta, then explained the working of the Japanese hand-loom and read a paper on the "Principles of Weaving" which had been previously printed at the cost of the Dawn Society and copies of which were distributed on the occassion. Babu K. B. Sen of the firm of Messrs. K. B. Sen & Co.. of Barabazar, explained in detail the process of weaving by hand-looms and contrasted the same with the methods adopted in power-looms in the Bombay Presidency. He also enlightened the audience on the subject of cotton seeds and the manufacture of cotton yarns; explaining the practical difficulties in the way of the Indian producer of cotton goods. Representatives of Messrs. [illegible] K. Ghose & Co. of Chandernagore exhibited the fly-shuttle hand-loom and an Indian weaver was in charge of the old Indian hand-loom. The Circular Domestic Knitting Machine was ably worked by Babu Kalachand Basak and Mr. T. C. Bose worked the Flat-bed Knitting Machine with conspicuous [illegible]. Babu Sukhabindu Sen Gupta was in charge of the Braiding Mach[illegible].

From 1 to 2-30 P.M. the visitors were disappointed to find that the machines were not in actual working order, but that they were being set up. From 2-30 P.M. to 5-30 P.M. however the work went on magnificently. But the time for the closing of the Exhibition being fixed at 6 P.M. and there being no

additional men to relieve the workers in charge of the machines, many were not shown the demonstrations. We would request the Dawn Society to hold another exhibition of this nature which should not be limited to one day, but should extend to at least three days.

There were also athletic performances under the leadership of Babu Satish Chandra Basu of the Bharat Anushilan Samiti, and there were also performances on the Gramophone. The Dawn Society took advantage of the occasion to exhibit one gold medal, two silver medals and a large collection of books (all relating to India), which were to be given away as prizes at the next Annual Public Meeting of the Dawn Society to be held on the 30th instant at the Calcutta University Institute Hall. In addition to these book-prizes there were also a collection of prizes consisting of articles of indigenous manufacture which were to be awarded at the same public meeting according to the rules of the Society, to some 10 student-purchasers of indigenous goods from the Industrial Section of the Society. We wish the Society every success in its efforts to train up Indian youths along national lines.

The Report of the Dawn Society for 1904.

[Reprinted from the Indian Mirror, August 6.]

THE Dawn Society of Calcutta is a unique institution in this country, for an all-round training of our young men outside the school and the college. A Sir Guru Das Banerji once remaked, "it seeks to help the cause of the whole education of young men, as distinguished from a partial education, such as is only possible in colleges, by supplementing the efforts of the college authorities. There can be no gainsaying the fact that many of our young men—mostly left to themselves and far away from the healthy influence and control of parents and guardians, either go astray or form such habits, practices and opinions, as they pick up at random, for imitation and adoption, without cari[illegible] or being in a position to think whether they are the right things to i[illegible]tate and adopt, or whether they will conduce at all to their individual a[illegible] national welfare." The Dawn Society seeks to help and guide our [illegible]ng men in their efforts at self-education by teaching them how to thi[illegible]or themselves, by making them come in contact with the best [illegible] society, by instilling into their minds the fundamental principles of religion and morality, by awakening in their heart sentiments of patriotism, and the spirit of self-acrifice, and by practically training them to work in concert for public good. The Society, besides holding classes, and arranging for lectures on special subjects by gentlemen who have made such subjects their life-study,

has also been publishing a Magazine for the benefit of the student community, which to quote the words of the Report, "exercises an immense influence over students," for, "it affords an opportunity of education of a type which every Indian student of the present day must make it his business to acquire for himself, in order that his interests in life may grow larger, and he may become more fitted for work as a useful member of Indian society." "In college," goes on the Report, "our students receive a type of education which must necessarily be academic, *i. e.*, theoretical. His intellect may be, to some extent, stirred, and his powers of thought may under judicious discipline be improved. But his education being academic, the thoughts and ideas and feelings which he learns or cultivates, must be very far removed from those vital questions which constitute the problems, of modern Indian life—questions, for instance, of social life, of civic life; questions relating to the growth and preservation of Indian arts, manufactures and industries; questions relating to the education of different classes of Indian society; questions relating to food and health, as affecting the student community in particular; those relating to the promotion of social intercourse between peoples of different Provinces, or between peoples of the same Province; diffusion among the people of one Province a knowledge of the vernacular literature of other Provinces, and of the types of life lived by the different classes and sub-classes of people living in the Provinces, their speech, manners and customs, means of livelihood, their religious character, and such various other types which it were too long to enumerate here." The Magazine serves to awaken a spirit of enquiry among the students in these subjects as well as in matters, religious and moral. The substance of lectures, delivered in the Moral and Religious Training Class of the Society, is published in the Magazine; and when the lectures themselves will appear in book-form, they are calculated to supply a crying want by providing teachers and students with a handy moral and religious text-book for use, embodying, as it would do, some of the main ideas of the Hindu religion and philosophy, popularly explained in eminently readable Bengali. There can be no doubt that the moral and religious education of our youths is a great desideratum in this country, and we are glad that the Dawn Society has taken the task upon itself.

The membership of this Society does not require the payment of any subscription by the students. On the other hand, if they are regular in their attendance at the classes, and show positive signs of improvement under the training of the Society, they are awarded special prizes, gold and silver medals, monthly stipends and certificates. We are glad to learn from the Report that the Society has been based on a firm footing, and is every day receiving help and patronage from every side. The number of

students, who are regular members of the Society, is daily on the increase, and we have no doubt that it will become a most useful and powerful institution for the good of the student community before long.

In this necessarily short notice of the Report, we cannot help mentioning a special feature of the Society, which appears to us to be not only novel and original but highly practical as well. The Society has got an Industrial Section, which aims at directing the attention of our young men to the problem of India's industries and making them think of the industrial position of our country, and also of its future prospects and possibilities, as well as at developing the practical intelligence of our young men by giving them opportunities of practical work or training in matters of trade business. The Industrial Section, which remains open every day from 4 to 7 P. M., sold goods valued a over Rs. 16,000 during the last two years. Students acted as salesmen, and thus had opportunities to learn the value of united or organized work, methods in business, honesty in trade, and the lessons of unselfish work with a view to some public good. It is superfluous to state here that the goods sold were purely of Indian manufacture, and such as everybody would generally require for ordinary use. To foster a love for indigenous articles, a number of prizes is awarded every year to student purchasers. Now, we need hardly say, that this is the right way of doing work, and it affords us great pleasure to think that the Dawn Society has taken up this important part of the education of our youths as well. The Society, as we have already remarked, is unique in this country, and we wish it all success from the bottom of our heart. Babu Satish Chander Mukerji, M. A, is the life and soul of this Society, and not only the students, but the entire educated community of Bengal, will remain deeply grateful to him for his silent, unostentatious and noble work. The Dawn Society has a great future before it. Let all patriotic Bengalis think on the work that Babu Satish Chandra and his colleagues are doing, and actively help them to carry it on with greater zeal and usefulness. The only thing to be considered is whether the Society is not attempting too much, and whether it will be able at all times to carry on all its objects effectively.

NOTICE.

1. Subscribers may get a copy of the REPORT AND RECORD OF WORK OF THE DAWN SOCIETY for 1904—a very important publication, by sending a half-anna postage stamp; non-subscribers must send two such stamps.

2. Subscribers when communicating to this office must quote their numbers.

PART II: TOPICS FOR DISCUSSION

CRYING NEED FOR INDUSTRIAL SWADESHI: FACTS AND FIGURES

I

"Rao Bahadur R. N. Mudholkar in his Presidential Speech at the Madras Industrial Conference of 1908 pointed out that even in such a commodity as jute-manufactured goods for which India possesses enormous natural advantages, having indeed a monopoly of the production of the raw material, she only exports to the value of 18.29 crores* of Rupees, and this is India's largest export of manufactured goods. Now, why is this?" The above question is put by Sir Roper Lethbridge, K.C.I.E., in one of his letters to the *Hindu* newspaper of Madras and his answer to the question is as follows:—"Simply because all foreign countries while they buy the Indian raw jute and import it almost free of duty, put on a heavy duty on the import of manufactured jute goods, so as to secure for their own workingmen, the employment that is given by the manufacture."

Similarly, writes Sir Roper in the course of the same letter:—"During my recent stay in Bangalore, my servant bought for me in the Bangalore bazaar at different times, ten boxes of matches—and every one of these had been imported into India from immense distances, not to speak of the journey from a sea-port to Bangalore. Four of these boxes labelled in English the *Three Stars*, the *Tjapling*, the *Grace*, and the *Tobacco*, had been sent from four different factories in Sweden! Three labelled respectively *Takikwawa* and *Naoki* had been sent from Japan! Two labelled the *Queen Alexandra* and the *Broom* had been sent from Austria! And one labelled (evidently for Indian consumption) *Two Elephants*, had been sent from Nitedal in Norway! Now these matches in order to be sold at a profit in Bangalore had borne the charges of original production—as would Indian matches†—and also the freight to Madras or Bombay from such distant countries as those I have named;—the profits of the exporting and importing merchants, the carriage to Bangalore and the profit of the local dealers. Why is this? *Simply because they are closely protected in their own country of production, and then admitted to India, to undersell the indigenous product, at a nominal rate of import duty.*"

* "The only completely manufactured articles which are exported from India in any considerable quantity are jute-goods which last year (1908) came to 18.29 crores of Rupees, cotton twist and yarn which came to 8.97 crores, and cotton piece-goods and other stuffs, 1.79 crores"—*From Mr. Mudholkar's Presidential Speech.*

† Rai Sahib Upendra Nath Kanjilal, F.L.S., Instructor, Imperial Forest College Dehra Dun (which boasts of a fairly well-equipped Wood Museum) in a valuable paper read before the Industrial Conference held at Calcutta in 1906 under the presidency of the Gaekwar of Baroda describes no less than twenty-seven species of trees growing in the Indian jungles that furnish the wood that is suitable for the manufacture of matches and match-boxes.

II

Many of India's industries which possess great possibilities of development have suffered and must continue to suffer from unfair competition from countries much more advanced, where free-trade principles are not recognised. The story of the closing of the Hosiery Department of the Bomanji Petit Mills of Bombay on account of unfair competition from Japan is an illustration in point. Dewan Bahadur P. Rajaratna Mudaliar C. I. E. in his *Welcome Address* as Chairman of the Reception Committee of the Fourth Indian Industrial Conference (1908), in reference to this point and generally to the difficulties of the Indian textile export trade from Bombay, spoke to the following effect :—"Our enterprising brethren of the Bombay Presidency have taken the lead in establishing a number of cotton mills which now supply yarn and cloth for home consumption to the extent of thirty per cent. of our requirements, *besides exporting a large quantity of twist and yarn* to China and Japan. This latter (export) trade is, however, in danger of being seriously affected, as China, the chief consumer of our mill-products, has begun to develop her immense industrial resources and *Japan is also becoming a formidable rival of India by protecting her industries by a system of bounties* and thus giving her cotton goods, especially hosiery, an advantage over goods made in India. In consequence of this unfair competition, the large hosiery department of the Bomanji Petit Mills of Bombay has had to be closed." The two ways in which Indian Swadeshi industries have suffered and are suffering from competition with foreign countries are—firstly, Swadeshi goods exported to foreign countries have to pay high duties before being admitted into them; and secondly, foreign goods receiving protective bounties from their own governments with a view to undersell Indian goods in India itself, are dumped down in Indian markets without having to pay any duties at all in this country. These two methods of protecting and encouraging her own manufactures are freely and liberally resorted to by Germany and only in a lesser degree by Japan; while America is not behind-hand in the matter of protecting her own industries by the use of the first method. We have spoken of the closing of the large hosiery department of the Bomanji Petit Cotton Mills. If we turn to the latest Blue-Book—*Tables Relating to the Trade of British India*, we shall find that the imports of hosiery into India from Japan, to compete with and ultimately to cause the closing of such mills as the one just mentioned, have actually increased from the value of £41,000 to £256,000 in 1907-8, in other words over sixfold in the space of four years. Thus, Japan's policy of protecting her industries has been eminently successful in this particular case. Japan has also raised her tariffs against Indian indigo. Similarly, America imposes heavy prohibitory duties on the imports of dressed and tanned skins from India; while Germany not only resorts to prohibitory duties but also grants large bounties in certain cases to bolster up her own industries, and floods the Indian markets with her own products, and is thus ruining Indian sugar and indigo industries.

III

Thus, as Dewan Bahadur P. Rajaratna Madaliar points out in the Address from which we have quoted—"Every country in the world, England alone excepted, resorts to a system of tariffs and bounties to foster her own industries." But England was not always in this position. When in the early part of the nineteenth century, it became necessary for England to develop her own infant cloth manufacturing industry, as the Hon'ble Rao Bahadur R. N. Mudholkar points out "every expedient of prohibition, high tariffs, preferential treatment of British manufactures was freely adopted by her," with the result that *now* the country which not very long ago supplied the whole world with cotton textiles, imports over three crore rupees worth of yarn and over forty crores worth of cloth. Those were days when duties were imposed by England deliberately to kill Indian manufactures. In 1813, Calcutta *exported* to London two million sterling of cotton goods; in 1830 all this was gone and Calcutta *imported* two million sterling of British cotton manufactures. The export trade was ruined in some cases by actual prohibition; in others, by prohibitive duties. Let us take the duties which were imposed on the import of Indian manufactures into England in the year 1824. We will take only some of the articles on which duty was levied. Muslins—37½ per cent; calicoes—67½ p.c.; and other cotton manufactures—50 p.c. As pointed out by the Hon'ble Bhupendra Nath Basu in his Presidential Speech at the Seventh of August (1909) Celebration in Calcutta, the present industrial movement—the Industrial Swadeshi,—or the Swadeshi Movement, as it is more popularly called—is seeking to redress to some extent the mischief inflicted in the past.. The story is well told in *Mill's History of India*, but a short extract will suffice :—

"It was stated in evidence (in 1813) that the cotton and silk goods of India up to the period could be sold for a profit in the British market at a price from 56 to 60 per cent lower than those fabricated in England. It consequently became necessary to protect the latter by duties of 70 and 90 per cent on their value, or by positive prohibition. Had this not been the case, had not such prohibitory duties and decrees existed, the mills of Paisley and Manchester would have been stopped in the outset, and could scarcely have been again set in motion, even by the power of steam. They were created by the sacrifice of Indian manufacture." In this connexion the following observations of *Friedrich List*, the great German economist and statesman as recorded in his well-known work, *National System of Political Economy*, would be found to be extremely pertinent :—

"Had they (the English) sanctioned the free importation into England of Indian cotton and silk goods, the English cotton and silk manufactories must of necessity have soon come to a stand. India had not only the advantage of cheaper labour and raw material, but also the experience, the skill, and the practice of centuries. The effect of these advantages could not fail to tell under a system of free competition.

"*But England was unwilling* to found settlements in Asia in order *to become subservient to Asia in manufacturing industry.* She strove for commercial supremacy, and felt that of the two countries maintaining free trade between one another, *that one would be supreme which sold manufactured goods, while that one would be subservient which could only sell agricultural produce.* In her North-American colonies, England had already acted on these principles in disallowing the manufacture in those colonies of even a single horse-shoe nail, and still more, that no horse-shoe made there should be imported into England. How could it be expected of her that she would give up her own market for manufactures, the basis of her future greatness, to a people so numerous, so thrifty, so experienced and perfect in the old system of manufacture as the Hindus? Accordingly England *prohibited the import of the goods* dealt in by

her own factories, the Indian cotton and silk fabric. The prohibition was complete and peremptory. She would have none of these beautiful and cheap fabrics, but preferred to consume her own inferior and more costly stuffs. Was England a fool in so acting? The English Ministers cared not for the acquisition of low priced and perishable articles of manufacture, but for that of a more costly but enduring *manufacturing power.*"

IV

The present industrial situation is this: From a manufacturing nation we have become mainly agricultural. A country which supplied the most delicate and costly fabrics to the world, which prepared tools, implements, machines and arms of all descriptions, which manufactured every kind of metal-ware and produced art-ware of the most finished fashion, has become now a producer of foodstuffs and raw material.* The most crying need of the hour, therefore, is the Industrial Swadeshi—or the voluntary *protection* of Indian manufactured goods by the Indian people themselves. To quote the words of Dewan Bahadur P. Rajaratna Modaliar,—"situated as India now is, without capital, without enterprise, without any scientific technical education and training, many of her industries which possess great possibilities of development have suffered and must continue to suffer from unfair competition from countries much more advanced, where free trade principles are not recognised." The gospel of Swadeshism, rightly understood, is the remedy against this unfair competition. In the language of the Honourable Mr. R. N. Mudholkar,—"Swadeshism is not combative and aggressive, but merely demands from the people support and protection for the *nascent industries* of the country, in the keen competition they have to meet from the established ones of foreign lands. This is a legitimate preference and its propriety is conceded by all fair-minded persons."* With this view the Gospel of Swadeshism enjoins the Indian people to take the *Swadeshi pledge to purchase Swadeshi goods at a sacrifice.* The Swadeshism of the People has accordingly become associated with a resolution to abstain from buying foreign goods. The reason for this procedure is very neatly put by the Honourable Babu Bhupendra Nath Basu † (at present filling the high office of a member of the Supreme Legislative Council of India)—"We had become so greatly addicted to foreign things, foreign modes, foreign fashions, that strong measures were necessary; the palaces of our princes were hung up with cheap and intolerable daubs; these houses instead of displaying the artistic productions of their country displayed incongruous furniture imported from some third-rate English shop. The middle classes also had completely succumbed. It was the poorer people who still held out against the temptation of the foreign importer, and it was necessary *just as in the case of the habitual drunkard,* to take the Swadeshi pledge." The Swadeshi of the Indian people, therefore, on account of its being associated with a sacred pledge taken in the name of the Motherland to purchase Swadeshi goods *even at a sacrifice* may, if adhered to, in time do duty for a legal protective tariff such as is imposed by so many foreign Governments to protect and encourage their native manufacturing industries and as has resulted in India being beaten in an unfair competition from countries at present more advanced in scientific knowledge and capacities and owing no allegiance to the principles of Free Trade.

* *Vide R. N. Mudholkar's Address at the Fourth Industrial Conference.*

† *Vide his Presidential Address on the occasion of the Seventh of August (1909) Celebration in Calcutta.*

PART III

SECTION I: NATIONAL EDUCATION MOVEMENT

A COURSE OF LECTURES ON MORAL EDUCATION, BY SIR GOOROO DAS BANERJEE, Kt., M. A., D. L., Ph. D.—II

(Delivered at the Bengal National College:—Continued from page 3, Part III of January, 1910 number of this magazine)

III. Divisions of Moral Education

(*a*) Acquiring of Knowledge in Ethics: (*b*) Practice of Moral acts

This leads us to the two divisions of moral education, knowledge, and practice, and their mutual relation. The first point to note under this head is that they are to some extent dependent on each other. We all know to what extent success in the acquisition of knowledge depends on the observances of certain laws of conduct. In this connection I shall mention only one point to you—the relation between food and the acquisition of knowledge. Recent medical researches in the West tend to confirm the teachings of our Sastras in this respect. It is now believed in certain scientific quarters in Europe that certain classes of food and drink, *e. g.*, wine, meat, etc., generate a large quantity of toxin or poison in the body which disturbs the nervous system and through it the operations of the mind. So we see that, in spite of the Sermon on the Mount, what "goeth into the mouth can corrupt as much, and even more, than what cometh out." We must remember, however, that the Sermon was addressed to the Jews to whom drinking was unknown, and at a time when the outward distinctions of ceremonial and unceremonial food had more engaged the attention of the Jewish priests and doctors than the inner condition of the soul. It is sometimes asked wherein our National Schools differ from other existing schools and colleges. I can point out to you at least one way in which you can be truly national. It is by adopting, like the older generations of students in this country, *Sattvik* (सात्त्विक) food such as ghee, milk, rice and fruits and pulse, and avoiding *rajasik* (राजसिक) and *tamasik* (तामसिक) food, such as the stale meat from the butcher's shop, and so on. In the matter of the practice of morality I can give you one advice. Every night before you go to sleep, you should think over the moral rules you have violated during the day, just as merchants think of their accounts before leaving their office, and this practice carried on from day to day should enable you to get rid of many bad habits and help in the formation of good ones.

III. Methods of Moral Education

(*a*) Based on the Sastras (authority); (*b*) Based on reason; (*c*) Attempt to reconcile authority with reason

Next, we come to the methods of Moral education. Here it is an important

question to be solved whether moral instruction is to be imparted by appeal to the *Sastras* (*i. e.* Scripture and Authority), or to *Reason.* Both methods, in my opinion, are to be combined in any adequate system of moral instruction. It would have been easier no doubt if we could solely depend on the first method, viz., appeal to authority. But, as you all know, authorities themselves differ, and how is one to reconcile these differences, or to make a choice between conflicting authorities, if not with the aid of reason? It is certainly the duty of the patient or his relatives to follow implicitly the directions of the physician, but it is also the duty of the physician, expert as he is in his profession, to satisfy his employers that he is following a reasonable course in his treatment of the patient. For it was by an exercise of reason on the part of these same laymen that the choice was made, not only of the particular doctor to be called in, but also of the special mode of treatment, whether Kaviraji, Hakimi, Allopathy or Homœopathy. Just so, in the case of moral instruction, the choice of authority lies with the individual reason, and there is no reason why it should be required to cease all its operations as soon as that choice has been made. The individual reason, the individual conscience, must after all be the final judge in the matter of moral decision. And the *Sastras* themselves corroborate the same view as will appear from the following enumeration of the sources of *Dharma*, from *Manu-Samhita* :—

वेदोऽखिलो धर्ममूलं स्मृतिशीले च तद्विदाम् ।
आचारश्चैव साधूनामात्मनस्तुष्टिरेव च ॥

"The whole Veda is the (first) source of *dharma*, next the tradition and the virtuous conduct of those who know (the Veda further), also the customs of holy men, and (finally), *self-satisfaction.*"

But at the same time we must remember that the *Sastras* or the authoritative scriptures of any nation record the decisions of the wisest men of that nation. So, instead of rejecting the *Sastric* injunctions as soon as they fail to appeal to our individual reason, we must try in the first instance to see if they can be reconciled with reason. For the intellect of the individual is itself limited in its scope, and requires to be constantly checked by the collective reason of humanity, and specially of the wiser section of humanity, as recorded in the *Sastras*. But before we proceed to discuss the injunctions of the old Rishis and Saints of humanity we must ourselves by constant and unceasing efforts raise ourselves to such a high level of knowledge and conduct that we may be worthy to sit at their feet.

NATIONAL EDUCATION OUTSIDE THE NATIONAL COUNCIL: MOVEMENT FOR EDUCATION OF THE DEPRESSED CLASSES AND OF THE MASSES GENERALLY.—II

(Continued from pp. 3-7 of the January, 1910 number of this journal)

Beginnings of Work in Bengal

I

Although Bengal cannot boast of a bright record of past work like the Punjab, or the Madras and Bombay Presidencies, still it is gratifying to note that the leaven has begun to work and that the subject of education of the depressed classes has begun to attract public attention. A number of primary schools were started some time ago in Backergunge and in other districts. Among those who helped in the formation of such schools in the early days of the Swadeshi movement (1905-6) were the well-known Swadesh Bandhab Samiti of Backergunge, now no longer in existence having been suppressed by executive order. Organisations like the Depressed Class Mission organised by the Brahmo Samaj with its head-quarters at Maliet near Narail in the Jessore District, and the Anath Seba Bhandar of Ichapore in the district of the 24-Pergunnahs, have quite recently sprung up in Bengal and are doing good work by opening schools for the education of the depressed classes. The former has, we understand, up to this time established a Day School at Maliet in the midst of a cluster of Namasudra villages with about a hundred boys and a small number of girls on the rolls, and a Night School with about forty students. There is another Day School under the general supervision of the Mission (receiving a small grant-in-aid) situated about a mile away and with about forty students on the rolls. Another Mission, known as the Khasia Mission started by the Brahmo Samaj in Assam, is doing a good deal of practical work by way of providing education for the Khasia tribes of the hilly country. The most recent news as regards the activity of the Samaj in this respect comes from Dacca where the workers have similarly laid their hands on the important task of educating the Depressed Classes. One of the workers has been stationed in a village full of these people where he has opened two primary schools for boys and girls and one night school for labourers. The Namasudras themselves have taken up the work in such right earnest that the boys' school, though opened only a few months ago, already counts sixty or sixty-five pupils whilst the girls' school counts 50 pupils. Efforts are also now being made to start primary schools in the Backergunge and Khulna districts and the well-known physician of Calcutta, Dr. Pran Krishna Acharya, M.A., B.L., 56, Harrison Road, has been interesting himself in the above movement and has invited workers to help it. Further, a Depressed Class Mission has been started under the auspices of the Bengal Social Reform Association, 62, Bowbazar Street, Calcutta, of which the Secretary is Sj. Prithwis Chandra Ray, Editor of the well-known monthly, the *Indian World* of Calcutta. The Mission has decided to work among the depressed classes of Eastern Bengal and Chota Nagpore and has secured the

services of one of the members of the "Servants of India Society," kindly lent by the Hon'ble Mr. Gokhale. This gentleman accompanied by two volunteer Bengali workers went out on a tour into some of the interior districts last month (December) and are expected to furnish a report of their work very soon.

The most recent and encouraging news about the progress of the movement for education of the depressed classess in the district of Backergunge comes from the rising trading town of Jhalakati, where both the Hindu higher castes and the *Namasudras* have joined hands. On the 20th January, 1910, a largely attended meeting of the *Namasudra* community was held in the premises of the National School at Jhalakati under the presidency of the Naib of the Gurudhan Bhukailas Raj-Estate. Many local gentlemen belonging to the higher classes, attended it. "Representatives of the *Namasudra* community, some 50 in number, from the neighbouring villages attended. The Head Master of the local National School, in a lengthy speech explained the importance and need of education of the depressed classes as the only sure means of improving their social position. He was followed by Sj. Chandi Charan Mistry, a Namasudra representative, who exhorted his fellow brethren to exert themselves in the work of education. A Committee was formed comprising some of the leading local gentlemen and the representatives of the Namasudras in the neighbouring villages to take up the cause of the education of the latter community in the district of Backergunge. The success of the meeting was due to the efforts of Sj. Anathbandhu Sen, editor of the local vernacular paper, the *Namasudra*, the very existence of such a paper showing what keen an interest is taken by the *Namasudras* themselves in the question of their social promotion by means of education.

II

In addition to these humble beginnings, we have to notice the work that is being unobtrusively done by certain national schools that have been imparting education both to the masses and the depressed classes in some of the districts of united Bengal. There are at present no less than sixty Primary National Schools in the whole of United Bengal, a good many of which, specially those in the districts of Backergunge, Faridpur and Jessore would appear, by the way, to have been started for imparting education specially to the depressed class, the Namasudras, and the backward classes among the Mahomedans. These schools are 'national' in the sense that they have been following the Scheme of Studies prescribed by the National Council of Education, Bengal, for Primary Schools. Some of them also received pecuniary help during the year before last, (1908), from the National Council in the shape of grants-in aid. But they are the work of individual persons and of independent organisations that have initiated them, maintain them and control them; and, as such, they are to be recognised as not coming directly within the purview of work undertaken and done by the National Council of Education. Though this is so, it has to be remembered that the attitude of the National Council towards this movement for education of the

masses and the depressed classes has not been unsympathetic, as would appear from the fact that the President of the Council, Dr. Rashbehary Ghose, M. A., D.L., C.I.E., C.S.I., on the occasion of the Prize-Day Meeting of the Bengal National College and School, April 9, 1908, made a public appeal for funds for, among other objects, the education of the Namasudra or the depressed classes as also for the education of the poorer section of the Mahomedan community of Bengal. Here are his words : "We want money for the development of the Mechanical Engineering Department. We want money for the opening of a Department for Applied Chemistry, for the development of the existing Biological Department, for opening a department for Agriculture, for the better equipment of Mofussil Secondary Schools. **We want money still for national primary education of the Namasudra class and for the poorer classes of our Mahomedan countrymen and fellow-subjects.**" These weighty words of the President of the National Council of Education will not fail, we believe, to make clear the attitude which the Council bears towards the movement. So far as we can judge, the actual present position of the National Council in this respect is this : That the Council have got only a limited number of workers in the field and so limited funds at their disposal. To build up and to show to the public the results of the working of an independent *system* of National Education, they have had hitherto to spend almost the whole of their money and energies on Secondary and Higher Education of the people and have perhaps little to spare for Primary Education, which involves an unlimited expenditure and also an expensive organisation. It is to be noted, however, that during the year before ast, (1908), the Council spent the sum of Rs. 1,000 on some of the Primary National Schools in the districts of Backergunge, Tippera, Faridpur, etc. The year 1909, however, was an extremely bad year for the Council, for on account of want of funds its expansion was arrested and it could make no grant on these Primary National Schools during that year.

III

We now proceed to give a short account of the Primary National Schools in the district of Backergunge, from which our readers may have an idea of the extent to which these schools are serving the cause of education both of the masses and of the depressed classes of Bengal. There are Primary National Schools in other districts which had also received grants-in-aid from the Council. The most salient features to be noticed about these schools are the following :—(1) In many schools Namasudra students form the majority. (2) In some of the schools the Namasudra and the Mahomedan students constitute the majority. (3) In cases of schools where the Musulman, the Namasudra and the Hindu higher caste students are more or less equally distributed, no caste distinctions are allowed to prevail in them. Lastly, (4) the schools teaching according to the Scheme of Studies of the National Council of Education, Bengal, provide, most of them, for technical and industrial training in combination with literary. And (5) regard being paid to the local village

industries, subjects like weaving, clay-moulding, cutlery and manufacture of palm-leaf fans, etc. are now being taught to these students.

WORKING OF PRIMARY NATIONAL SCHOOLS IN BACKERGUNGE DURING 1908

INTRODUCTORY

In August, 1907, the students and teachers of the Bengal National College and School started a "Small Collections Fund" called the Jateeya Siksha Bhandar in aid of the National Council of Education. The money collected was to be appropriated in promoting, among other things, the cause of Primary National Education in Bengal. This news having spread throughout Bengal; more than two hundred applications from so many schools for grants-in-aid reached the office of the Secretaries to the National Council. The question of helping in the maintenance of Primary National Schools was then pushed forward before the Executive Committee of the Council, who at last appointed a sub-committee to consider it. The *pros* and *cons* of the question were gone into and the Executive Committee finally decided that a sum of rupees one thousand should be spent for the purpose for the year 1908. There were received about 100 applications from the District of Backergunge, of which only ten were granted and the total sum of Rs. 500 allotted for the year. The remaining Rs. 500 was distributed among other Primary National Schools in other districts. The following is a short account of the more important of Primary National Schools in the District of Backergunge some of whom were in receipt of a grant-in-aid in 1908.

B. K. B. INSTITUTION

Introductory :—This school was started at Krishnakati by the combined efforts of the people of the three villages, Badalkati, Krishnakati and Bikana, in the Thana of Jhalakati, on the first day of the year 1905. The school at first taught up to the Upper Primary Standard of the Calcutta University and was in a short time granted the monthly sum of rupees five from the District Board. In the year 1906, the authorities of the Education Department, however, with a view to strengthen the Circle School in the neighbouring village of Agarbari, proposed the abolition of the school at Krishnakati. The conductors of the school did not relish such a proposal with the result that the District Board stopped their monthly grant of rupees five. The local public, however, re-organised the school and raised it to a Middle Vernacular school with five teachers on the staff. New houses were built in a place midway between the three villages mentioned above, and the school was finally removed there. It is also worth mentioning that the people of the three villages, young and old, have with much enthusiasm built a kutcha road about three miles long for the convenience of students attending the school from the villages.

Students and their Training:—There were 107 students on the rolls when the school was recognised by the Council. Of these, 29 were Brahmans, 41

Kayasthas, 18 Namasudras and 19 Mahomedans. Since 1908 the school has been teaching up to the Secondary first year course of the National Council of Education (corresponding to the Middle English Course of the Calcutta University) and was in receipt of a grant for the year 1908. Like almost every other National School, this school has also made provision for imparting technical training to the students in combination with literary. The following are the subjects at present taught to the students:—Spinning and Weaving, (by means of *Charkas* and handlooms), book-binding, and the manufacture of palm-leaf fans, toys of clay, ink-pots, utensils, walking-sticks and seals. A carpentry class is also expected to be soon started in the school.

An Exhibition of articles manufactured by the students of the school was held in May 1909, lasting for a whole week. The work of the school was highly appreciated by the gentlemen of the neighbouring villages.

Financial Position:—The income of the school chiefly consists of the school-fees of students, monthly subscriptions and Mushti Bhiksha (house-to-house rice collection). The authorities of the school also expect to increase the funds at their disposal by the sale-proceeds of season-vegetables of the locality collected by way of alms from the house-holders. The Council's grant for the year 1908 was Rs. 150 only.

AMRAJURI SCHOOL

A Middle English School was being maintained by the Government at Amrajuri (Thana Kaukhali) in a house lent by a local gentleman for about 20 years. The Government removed the school in 1907 to one end of the village, where it would be difficult for young boys of the locality to go to attend school. The people of the village, however, established a Middle English School at the house where the Government School had been situated and which is in the centre of the neighbouring villages. The School at present teaches according to the syllabus of the National Council.

There were 53 students on the rolls, of whom 10 were Namasudras ("depressed class" Hindus) and 2 Mahomedans. The teaching staff consists of four experienced teachers. Clay-moulding and card-board work are the two industries at present taught to the students.

The school has no buildings of its own, no library. Average monthly income amounted to rupees twenty-six, of which Rs. 9 came from school-fees, Rs. 12 from subscriptions and Rs. 5 from Musti Bhiksha and other sources. The school received Rs. 150 from the National Council as grant-in-aid for 1908.

BANSBUNIA SCHOOL

A primary school was started at Bansbunia near Bhandaria in the year 1906, but has been teaching in accordance with the Scheme of Studies of the National Council since October, 1907 and was in receipt of a grant by the Council of Rs. 45 for 1908. There were at the end of the year 1908, 45 students on the rolls, 23 of whom were Namasudras. There are two teachers in the School. The school has as yet made no provision for technical education, but

the following industries are taught to the students, namely, the manufacture of palm-leaf fans, flowers etc. from paper, and clay idols. The school is provided with spacious accommodation and with necessary furniture. Monthly income consists of school-fees and subscriptions. Average monthly expenditure for 1908 amounted to rupees thirteen only. *(To be continued)*

SECTION II : STUDENTS' COLUMN

THE SECOND AND THIRD CITIES OF THE EMPIRE: COMPARATIVE CLAIMS OF BOMBAY AND CALCUTTA—II

(Concluded from pp. 8-11 of Part III, Sec. II of the January, 1910 issue of this journal)

VI. (A) Buildings Public and Private: Some Striking Contrasts

The Victoria Terminus Ry. Station of Bombay is one of the best and the finest stations in the world. Its majesty lies in its imposing structure and decorative architecture. Even the new Howrah Station has no claim to this majesty of architecture though it may occupy a greater amount of space than the Victoria Station. As regards provisions for the general comfort of intending passengers, there is not much difference between the new Howrah Station and the Victoria Terminus of Bombay. The Municipal Corporation Building of Bombay, with its imposing Tower, looks grander than that of the long inartistic Corporation Building of Calcutta. There is no grand Hotel in Calcutta to compare with the Taj Mahal Palace Hotel of Bombay. The Crawford Market of Bombay, again, only equals in size two or three wings of the Calcutta Municipal Market. The Governor's Bunglow at Bombay is less imposing than the Lieutenant Governor's residence—the Belvedere at Alipur, not to speak of the mighty Government House at Calcutta. The High Court, the General Post Office, the Bengal Secretariat Buildings, and the Town Hall in Calcutta are also grander than their Bombay prototypes. The Rajbari Clock Tower is beautiful, indeed; but the Ochtorlony monument in Calcutta is no less imposing.

(B) Private Buildings: Calcutta's Strength and Weakness

There are a good many private buildings in Bombay; of these the Petits' Palace at Mahaluxmi looks very beautiful and enchanting in the evening in the glow of electric lamps. Nature, Art and Riches have combined to turn the Malabar Hill and the Cumballa Hill at Bombay into an earthly Paradise. Calcutta has got a good many gigantic private structures, which are really palatial buildings, such, for example, as those which are the property of late Raja Rajendra Lall Mallik, the late Maharaja Joteendra Mohan Tagore, the late Cally Kissen Tagore, Maharaj Kumar Rishi-Case Law, Rai Bahadur Buddreedas, the great Jain Jeweller, the Mullicks of Chitpore. Bombay has but very few such private palaces; but in Calcutta they are situated in most unpoetic places and they do not, therefore, attract so strongly the attention of the new-comer like the most striking of the Bombay buildings described above. If both the banks of

the Hooghli instead of being lined with dirty godowns were adorned by these mighty structures (belonging to our Rajas and Maharajas in calcutta) which, as a matter of fact, are situated sometimes by the side of abominable hovels, sometimes also in dark lanes, they would have looked like so many pictures of beauty fit for the poet's pen or the painter's brush and would have drawn tourists from throughout the world, as Venice does up to this day. The quarter where the Fort of Bombay is situated looks very much like the places round the Dalhousie square of Calcutta; but is far surpassed in beauty and grandeur by the Chowringhee-quarter of Calcutta.

(C) The Bombay Chawl: Not to be copied by Calcutta

In Calcutta there are three classes of buildings, (*a*) the massive buildings owned by rich men and merchants, (*b*) smaller buildings of middle class people used for residential purposes; and (3) the *Kuccha* huts used by the poor. On account of the prevalence of the *Purdah* system in Bengal, the poorer inhabitants of Calcutta prefer to live apart from other families in separate dwellings, although the structures in which they live are no better than hovels of bamboo and earth. For the same reason, also, the middle class people of Calcutta prefer living in separate houses, however humble and small, to putting up on a big composite building in which different families occupy different rooms separated from each other only by partitions. For the reason given above, there are such a large number of small residential houses in Calcutta. The case is quite different, however, in Bombay, where, there have been built by capitalists large houses called *chawls*, and in a single *chawl* sometimes a hundred or two hundred people or even more would live together. The *chawls* generally consist of long rows of rooms of equal dimension and of the same description. Each room is separately let out by the man in charge of the house according to a fixed rate—the rate fixed by the proprietor. In a *chawl* we have the most unedifying spectacle of men and women of quite different families, often of different nationalities, and possessing the most varied temparament using the same taps, the same bathing places, the same latrines, compounds, passages and gates, etc.,—a state of things which no Bengali family can, as a matter of principle, tolerate for a moment. One who has experience of this sort of *chawl-life* cannot have the least respect for a civilisation which can give birth to such pandemoniums. The Calcutta Improvement Trust, which has been recently created by Government for the improvement of the City of Calcutta, will soon do away with many small buildings where families of the middle classes live. In place of that the Trust, as it is going to copy its Bombay predecessor, will no doubt, introduce the *chawl* system in Calcutta. If that be so, our Bengali Society will be threatened with a new and dire evil, which, morally speaking, will soon undo all the good things that might be expected from the said Trust. Before the threatened introduction of this *chawl* system in Calcutta takes place, some of the leaders of Bengali society should come to Bombay and live in *chawls* for some days and know by practical experience what a *chawl-life* is like. They will then discover how far it is good for one to live with one's family in apartments in such a house as a *chqwl*, where all sorts of people live and congregate—

good men with bad men, unmarried man of pure character with debauchees, drunkards, very often with thieves and loafers, for these abound in every collection of human beings in this civilised 20th century.

VII. Municipal arrangement and Public Thoroughfares

In Bombay some of the old narrow lanes (which, by the way, are as plentiful as blackberries in Calcutta) have given place to broad, straight roads, thanks to the Bombay Improvement Trust; but otherwise I do not see any great difference between the character of the Calcutta and Bombay Municipalities. Thus, the principal thoroughfares of Calcutta in the European quarters are kept scrupulously clean. Similarly also, although there is no such clean, wide road in Bombay as the Chowringhee or the Red Road of Calcutta; the Hornby Road and some of the principal thoroughfares of Bombay are kept very clean, indeed. But excepting these main thoroughfares the native Indian parts of the town in both the cities are as ugly as possible; or rather Bombay in respect of such ugliness can give points to Calcutta. In the dry season, the season, the dust in Bombay is a great nuisance in the Indian parts of the town, rainy season the less said about the mud and the slush the better.

VIII. Conveyances

Calcutta is very poor in her means of conveyance as compared with Bombay. In Calcutta people have to depend only upon the service of horse-drawn hackney carriages and of electric tramcars, there being no Railway service for passengers within the city itself. Of course, ferry-steamers on the Hooghly should have to be taken into account also, but they are quite recent things. Bombay, however, has the great advantage of having Railway train service, at intervals of every 10 or 12 minutes, with stoppage stations at almost all important places within the limits of the city. Over and above these, there are the electric tramcars and the Victoria hacks, which are horse-drawn carriages differing from the Calcutta hacks in this that while in the latter city there are three classes of them—the 1st, the 2nd and the 3rd classes, in Bombay there is only one such class. Further the carriages in Bombay are all rubber-tyred, private or public. In this matter, as also in respect of her Motor cars, Bombay is far ahead of Calcutta. The first class carriages, however, of Calcutta are all rubber-tyred being generally drawn by pairs of biggish horses; they are much superior to the Bombay hacks and do credit to the great city to which they belong. It is necessary to mention here that all the hacks as well as almost all the private carriages in Bombay are "compass" carriages, as they are popularly called in Calcutta, that is, carriages dawn by single horses. But as regards stately private equipages, Calcutta is far surperior to Bombay. A pair of gorgeous Walers drawing a single car is a common enough sight in the metropolis of India, but it is rare in Bombay. But the standing disgrace to an advanced city like Bombay are the bullock carts *for conveyance of human beings*, while the rickety third class hackneys drawn by country horses of very poor physique are a disgrace to the Capital of India.

IX. Public Places of Recreation

There is nothing in Calcutta to compare with an evening walk on the *Chowpathi* or the Apollo Bunder at Bombay. But Bombay has no 'Public Gardens worth the name except the Victoria Gardens, which, however, performs a fourfold function, *e. g.*, (1) as a Zoological Garden, (2) as a Museum, (3) as a Botanical Garden and (4) as an Eden Garden. But

the total extent of the Victoria Gardens at Bombay would not, I presume, exceed the total area of the last named garden, namely, the Eden Gardens of Calcutta. Another place of public resort in Bombay is the Museum. But it is far inferior in size to the Museum at Calcutta, two halls of the latter being sufficient to accommodate the whole of the Bombay Museum. Again, the merits of the Zoological Gardens and the Botanical Gardens of the two cities are far apart, the advantage being in favour of those in Calcutta. Thus the Calcutta Gardens would strike the Bombay beholder with wonder and admiration. Similarly also, the Maidan in Calcutta which is adorned with so many statues cannot compare with the maidan at Bombay. Besides these, there are a large number of public squares in Calcutta; in which respect Bombay is at a great disadvantage.

Calcutta has got fine play-houses conducted by Europeans; and also others conducted by Indians. With regard to the former, Bombay is very poor, but she has got some good Indian theatres. Though some of these Indian theatres are sufficiently well-equipped in the matter of dresses for the actors and of scene-paintings, they are not so, up-to-date in respect of their subjects of play, and also of music, like their Calcutta compeers. Thus there is no regular concert-music in the Bombay theatres; but instead the musical performances are done with the help of old-fashioned harmoniums, fiddles, and the Indian Tablas. Whereas in Calcutta the Indian theatre-managers have not only successfully copied the Europeans, but have also added something of their own, in making up a charming Indian concert, such as the Indian theatre managers of Bombay can hardly imagine. Again, in Calcutta almost every week some play or other from the pen of reputed dramatists, bearing on some current topics or some burning question is staged in the Bengali theatres; whereas in Bombay the same old play of Harishchandra of the Indian classics is repeated over and over again for weeks and even for months together on the lifeless stages of Bombay; thanks to Harishchandra for providing the Bombay people with a subject for play. A similar contrast is observable in respect of another matter. Properly speaking, except a sort of mock movement of the body, there is really no scientific dancing in a Bombay theatre like what we find on the Indian stage in Calcutta, where sometimes the art is carried to perfection.

X. Restaurants, Hotels and Grog-shops

Chawl life, to which reference has already been made, is productive of one serious evil, namely, the undue partiality on the part of those people accustomed to such *chawl* life for Restaurants and Hotels. In this particular matter Bombay has beaten hollow even advanced Callcutta. We accordingly notice, an innumerable number of restaurants and grogshops all well-furnished, well-kept and well-provided, flourishing in the very bosom of orthodox society. Generally, tea and biscuits are the chief items of refreshment in these restaurants. One cannot obtain so many kinds of delicious sweets here in Bombay as in Calcutta. Besides restaurants, there are a number of hotels, European as well as Indian, in the city of Bombay.

XI. Clubs

The Royal Yatcht Club and the Byculla Club of the Bombay city, which are European Clubs, are the counterparts of the United Service Club and the Bengal Club in Calcutta. But neither of the first two can compare with the

imposing structure of the newly constructed Bengal Club in Calcutta. As regards Indian Clubs, there are very few clubs in Bombay to compare with such Indian clubs in Calcutta as the India Club, the Town Club, and the Bharat Sangit Samaj.

XII. Games and Sports

Bombay is famous for its cricketers, and there are undoubtedly some of the best cricketers in the world among the Europeans, the Parsis and the Hindus of that city. But the manly game of football in Bombay counts among its votaries a very low percentage of the population ; while in Calcutta some of the best football players of India are to be found among the Bengalis and the Europeans of that city. With regard to tennis, however, we find that it is a common enough game in both cities ; while there are first class golfers among Europeans of the Bombay city. Among indoor games, billiards is a greater favourite in Bombay with the Indian community than in Calcutta, which last city is specially noted for its Bengali chess players.

XIII. Political and Social Activities

Public matters do not ordinarily excite the interest of the average Bombayite who is usually busy with his own affairs. Excepting in the case of a limited number of people, there is a general apathy among the citizens who are happy so long as they can earn their money merrily. But go to the Beadon Square or to the College Square in Calcutta, of any evening, and you will notice knots of people here and there discussing topics of general interest. On the other hand if you go on an evening to the *Chowpati* or any other place of resort in Bombay, you won't ordinarily notice anything else than talks on private matters and talks about your dress and appearance and such like trivial things. Even when we consider the case of enlightened people like the members of the Bar, Calcutta and Bombay offer points of contrast. A visitor to the Bar Library of the High Court of Calcutta, intent on marking the character of the conversation that may be heard there, will be impressed by the high tone of public spirit, that marks the discussions,—a thing which is deplorably at a discount in the conversation to be heard within the walls of the Libraries in the Bombay High Court. Among active public bodies the Presidency Association of Bombay occupies the first place in the Bombay city and may be compared to the Indian Association of Calcutta. With regard to non-political organisations, Bombay cannot boast of organisations like the Bangiya Sahitya Parishad (Academy of Bengali Literature) or the Sangit Samaj of Calcutta.

XIV. Conclusion

I have finished my hasty survey of the two cities, Bombay and Calcutta. The former has earned the high title of the Beautiful, 'Bombay the Beautiful,' as she is called ; while Calcutta has no less a claim to our regard, for she is admittedly the 'City of Palaces' and is called by that name by everybody. The claims of the two cities are thus not unevenly balanced ; but still the question remains unanswered,—Which is the Second and which is the Third city of the Empire ? Is Bombay to be given the higher place in our estimate, or Calcutta ? I pause for an answer.

BOMBAY
July 29, 1909

P. C. DUTT

Question: How can **Indian Students** increase their **Love of Country?**
Answer: This can be done by—

i. Increasing their knowledge of Indians and of Indian Civilisation, esp. Hindu and Islamic,
ii. Working together for something useful to their district, town or village,
iii. Supporting indigenous industries and enterprises, even at a sacrifice,
iv. Helping the cause of national education, at once scientific, technical and literary.

THE DAWN — AND — DAWN SOCIETY'S MAGAZINE

एकरूपेण ह्यवस्थितो योऽर्थः स परमार्थः ।

That which is ever-permanent in one mode of Being is the TRUTH.—Sankara.

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PART I : INDIANA

GROWTH OF SWADESHI THROUGH MAHOMEDAN ENTERPRISE AND INITIATIVE

I. Introductory

There is an idea abroad that our Mahomedan fellow-countrymen have not contributed much to the progress of the Swadeshi movement, that they are by habits and temperament disinclined to take to technical education, and that not much credit could be placed to their account in the matter of starting and maintaining industrial enterprises of any moment. That there is some truth in this indictment must be taken for granted, especially when we find Mahomedan leaders themselves in their public declarations bewailing the lack of the industrial spirit among their own fellow-religionists. Thus, at the All-India Mahomedan Educational Conference held at Rangoon towards the end of December 1909, the Hon'ble Raja Sir Mohammed Ali Mohammed Khan, K. C. I. E., in his Presidential Address referred in the following most uncomplimentary terms to the Mahomedan character—"The Mahomedans prefer the security and drudgery of desk-work to manual labour in the factory. * * * I would ask every Mahomedan parent to give a technical training to at least one boy in the family." Similarly also the Right Hon'ble Syed Ameer Ali in his "Written Greeting" to the last Session of the All-India Moslem League held at Delhi on Jan. 29, 1910, reminded his Mahomedan fellow-countrymen that the evidence of their past history showed that the "dignity of labour" was a cardinal creed with them. His words were emphatic and stirring,—"Your forefathers never condemned trade, commerce or any form of industry. Kings applied themselves to learn handicrafts; viziers were merchants. The greatest scholars, scientists and

poets had some vocation. The Prophet himself preached constantly the dignity of labour. * * Why should you not look for other (industrial) avenues to means and prosperity? State-service affords but a narrow field of occupation and it is already held largely by representatives of other communities whom it would in any circumstance be difficult to dislodge. The legal profession is over-crowded and many have taken to it who have little aptitude for its initial drudgery and constant assiduity. * * * The training of your youths, especially in Upper India, in Bengal and in the Punjab, has been mostly academic, either with a view to State-service or to the pursuit of Law. Many fields of industry are lying mostly untouched by our people; to yield a return they all require training and technical knowledge which your educational institutions could easily impart." The above statements made by representative Mahomedan gentlemen go to show that the need for a more thorough-going pursuit of commerce and the industries than what has hitherto been the case among the followers of the Islamic faith is being understood and felt by them. But although this is so, we shall show, on the strength of facts which we will presently bring forward in the course of this article, that the Mahomedans have not been so behind-hand in the pursuit of the industries as they have been represented to be. We hold and we propose to bring forward convincing facts in support of our view,—that although they have not been so very articulate and demonstrative in the expression of their views on the subject of Swadeshi, as the members of the Hindu community have been, they have been pursuing silently and steadily the Swadeshi creed through so many years, and that they can show a record of work of which every Indian ought to be proud. True it is that the Mahomedans as a class—and in Bengal, in particular—have kept themselves apart from their Hindu brethren in Swadeshi-preaching work intended to create a wider demand for indigenous goods; and further, that in some instances, particular sections of the Mahomedan community might have openly preached against Swadeshi. But although this is to some extent true, still the fact remains—and this is the subject-matter of the present article—that on the material, or more properly, the *constructive side* of Swadeshi, as apart from the propagandist side, the Mahomedans have achieved results which are of no mean order. The Swadeshi movement in India, properly speaking, is not a thing of yesterday—although it received of late an impetus owing to certain extraordinary circumstances; and the Mahomedans have been, like their Hindu brethren, constructive Swadeshists from a time anterior to the days of demonstrative Swadeshi, as the following account will go to show.

It will be clear from a perusal of this article that there are and have been a considerable number and variety of Swadeshi industrial enterprises which have owed their origin and development exclusively to Mahomedan initiative, energy and capital. And further it would also appear that in the case of some of our Swadeshi enterprises which have owed their origin to Hindu initiative, Mahomedans have been associated and have taken their proper share with their Hindu brethren in the work of management.

The spirit of Swadeshi is in the air, and it is no longer possible in India either for the Hindus or for the Mahomedans to shut their eyes to the fact that in the development of the Swadeshi industrial spirit lies the future of a self-supporting India. And thus it is that in that view the Mahomedans equally with their Hindu fellow-countrymen have come to recognise the need of some sort of protection for Indian industries. The cult of constructive Swadeshi is no longer or has never been, as we are going to show, a purely Hindu movement; it is Mahomedan as well. And also the highest representatives of the Mahomedan community are at one with the Hindus in recognising that,—we will quote the language used by H. H. the Aga Khan in his Presidential Address to the All-India Moslem League held at Delhi in January last—that "to obtain the regeneration of Indian arts and industries, either a temporary moderate system of protection, or some corresponding economic expedient should be adopted, so as to prevent the strangulation of the infant industries of India."

II. Constructive Swadeshi Enterprises—the Result of Mahomedan Energy and Initiative

Mahomedan Match-Factories, Oil-Mills, Paper-Mill, Ice-Factory, Flour-Mill, Leather-Works, Rolling-Mill

The many-sided activities of our Mahomedan brethren in the cause of constructive Swadeshi are well represented in a number of mills and factories started and controlled by themselves. Thus, there are two match-factories fitted with up-to-date machinery and owned by Mahomedans, namely, (1) the Gujarat Islam Match-Manufacturing Co. of Ahmedabad, and (2) the Berar Match-manufacturing Co. of Ellichpur. There are also two Mahomedan Oil-Mills,—the Nawab Saheb's Oil-Mill, 244 Upper Circular Road, Calcutta and the Moola Mahomed's Oil Mill, Rangoon, and a Mahomedan Paper Mill, namely, the Mahomed Bhai Jamaluddin Paper Mills, Surat. In Lucknow there is an Ice-Factory and there is also a Flour Mill run by Indian Mahomedans in an up-to-date style; while at Cawnpore there are a number of Mahomedan firms

engaged in the manufacture of leather goods. Cawnpore also boasts of a first-class Rolling Mill and an Iron and Steel Factory, fitted with up-to-date machinery. Not only has the Factory been started with Mahomedan capital, but it is also under the direct control of a Mahomedan expert, who is the son of the principal Director, a Mahomedan, and who learnt his business in England. The Factory was formally opened by His Highness the Nawab of Rampur some time in the middle of the last year, and the occasion was indeed a noteworthy one, being marked by great jubilation on the part of our Mahomedan brethren. The Factory is, perhaps, the first of its kind in the United Provinces, and is an important one being capable of turning out 40 tons of finished iron in 24 hours.

Mahomedan Steam Navigation and Banking Enterprises

The need of Swadeshi navigation enterprises cannot be exaggerated in the face of the fact that both our inland and coasting trade is almost wholly dependent on foreign Navigation Companies. The numerous ports along the banks of the navigable rivers in Eastern Bengal and Assam and the sea-ports between Akyab and Madras offer ample scope and opportunities for the working of Swadeshi Navigation Companies; and unless our countrymen are able to make adequate provision for cargo traffic between these ports, our trade must suffer from heavy freights charged by foreign Navigation Companies, which necessarily tells upon our nascent industries. Under these circumstances one cannot but be gratified to learn that one of the first and greatest Sawdeshi navigation enterprises in Bengal, the Bengal Steam Navigation Company, owes its inception to Mahomedan energy and initiative. In the pages of this magazine we have more than once adverted to this Sawdeshi Mahomedan enterprise. We would, therefore, content ourselves here by giving only some general facts. The Company which was organised mainly through the offorts of a few Mahomedan gentlemen of Chittagong and elsewhere has an authorised capital of ten lakhs of rupees, while its working capital almost reaches the same amount. It has a sailing line between Akyab, Chittagong, Calcutta and the Northern Coromandal coast. In spite of very keen competition with two foreign Navigation Companies, viz., the Asiatic and British Steam Navigation Companies in their Rangoon-Chittagong Section, the Bengal Steam Navigation Company was able to declare at its Annual General Meeting held on 30th June, 1907, a dividend of 7½ per cent to the share-holders.

Though our Mahomedan fellow-countrymen have hitherto not taken any share in the starting of Swadeshi Banking Companies,

probably on account of religious considerations, still we have to record that they have lately made a fair beginning in this direction. They have started a Bank in the Panjab under the name of the Orient Bank of India, Ld., having its Head Office at Lahore and branches—at Lyallpore and Bombay. The authorised capital of the Company stands at five lakhs, while the subscribed capital reaches about four lakhs. The operations of the Bank include business under the following heads :—Current Account, Savings Bank Account and Fixed Deposit Account. A Mahomedan gentleman, Ahmad Hassan, Bar-at-Law, is the Managing Director.

Indian Sugar Industry: Improvements through Mahomedan Help

It is gratifying to note that Indian Sugar Industry has received considerable help from Mahomedan intellect and energy. The process of sugar-manufacture known as the "Hadi process" and now mostly adopted by agriculturists of moderate means was first devised and worked by a distinguished Mahomedan gentleman, Khan Bahadur Syed Mahomed Hadi, M. R. A. C., Assistant Director of Agriculture of the United Provinces. The devoted work of Mr. Hadi and two other gentlemen, one a Mahomedan and the other, a Hindu, in the cause of the Sugar Industry of the United Provinces, was bound to attract the attention of Sir John Hewett, the Leiutenant-Governor of those Provinces. Thus, in course of an appreciative speech delivered by him on the occasion of the inaugural ceremony of the Prayag Sugar Works at Allahabad in July, 1909, the Leiutenant-Governor observed :—"Mr. Md. Hadi, Khan Bahadur has devoted much energy and capacity to adapting indigenous methods directed to produce a form of the raw sugar known in the trade as rab, which when pressed through a centrifugal machine shall yield a white sugar of higher grade than can be secured by indigenous methods, and at a cost of production which will leave a substantial margin of profit. I also see present to-day Thakur Ragho Prasad Singh Rai Bahadur of Baraon, and Shaikh Wahidud-din Khan Bahadur, who have in this and the Meerut district respectively, devoted their time and capital to the establishment of Factories worked under Mr. Hadi's method, and designed to test new machinery, to turn out students qualified to work the process, to conduct experiments ; and to the working of a Demonstration Factory on commercial lines and of providing assistance to other factories. I should like to take this opportunity of publicly congratulating these three gentlemen on the excellent work which they have done and also on the recognition by the Government of that work shown in the grant of a title to each of them."

That the process of sugar-manufacture introduced by Mr. Hadi in

1907 has attained considerable popularity, would appear from the rapid increase in the number of factories worked according to that process. Thus, we gather from a reply made on behalf of the U. P. Government by its Director of Agriculture, the Hon'ble Mr. H. G. Hoare, to a question put by an Indian member, at a meeting of the enlarged U. P. Legislative Council held on February 7th, 1910, that there were during 1908-09, 14 factories worked according to Mr. Hadi's method in the United Provinces; and further that in 1910 over 30 factories have been working and others are being organised. We also learn from the same source that "the rate of profit on the working expensus for the year (1908-09) including depreciaton, as shown in the accounts of the 12 factories which were balanced, ranged from 12 to 55 per cent." It is not only in the United Provinces that Mr. Hadi's process is followed, but even in the distant Presidency of Bombay, there are factories worked on the same method.

Indeed, Mr. Hadi has done a great service to the country by presenting to the agriculturist of moderate means a new process of manufacture, which, if well worked out, leaves undoubtedly a higher margin of profit than the old process could do. And all this progress in the department of Industrial Swadeshi is, as we have seen, the work of a highly gifted Indian Mahomedan gentleman whose name ought to go down to posterity as a benefactor of his country. We deem it necessary in this connection to mention that Mr. Hadi is a graduate of the Royal College of Agriculture at Cirencester, England. He is a member of the Royal Asiatic Society and has just been selected President of the United Provinces Industrial Conference to be held at Benares on 23rd March, 1910. He is also the author of a monograph on *Dyes and Dyeing*.

Mahomedan Sugar Factories

If Khan Bahadur Syed Mahomed Hadi has done so much for Indian Swadeshi in the department of scientific sugar manufacture, there is also the fact that several Mahomedan gentlemen have taken a leading part in trying to popularise it by starting Sugar Factories in accordance with Mr. Hadi's plan. We are not to be understood that Mahomedans alone have adopted Mr. Hadi's method, for, although we have not been able to secure statistics for the thirty factories already referred to in the Government reply to the question by an Indian member of the U. P. Legislative Council, it would appear that out of 25 of them for which information has been available to us, no less than thirteen are owned by Hindus and nine exclusively by our Mahomedan fellow-countrymen. The above mentioned Mahomedan factories are distributed in the following localities, namely,

(1) Panchli, in the district of Meerut ; (2) Amroha in the District of Moradabad ; (3) Amethi, in the district of Sultanpur ; (4) Itai Rampur, in the district of Gonda ; (5) Mahmudabad in the district of Sitapur ; (6) Bikapur in the district of Fyzabad ; (7) Rampur State ; (8) Bhopal State (two factories). And the names of the proprietors of these factories in the order of the localities mentioned above are :—(1) Khan Bahadur Shaikh Wahiduddin ; (2) Syed Shabihul Hasan ; (3) The Shia Sugar Co. ; (4) Malik Sharif Husain ; (5) The Hon'ble Raja Sir Md. Ali Mahmud Khan Bahadur ; (6) Mr, Masuma Begam, wife of Nawab Baquar Husain Khan ; (7) H. H. the Nawab of Rampur ; (8) H. H. the Nawab Begam of Bhopal ; (9) Nawab Nasrullah Khan Bahadur, heir-apparent of Bhopal State.* The above factories are among the more recent of Swadeshi enterprises started in India and it redounds to the credit of the Indian Mahomedan community that so many members of the Mahomedan landed aristocracy, especially in the United Provinces, should have taken such a step torward in the direction of improving the popularity of the sugar industry of their own Provinces. The growth of imports of foreign sugar has been so very appalling of late that in our opinion the starting of 30 factories on an improved plan to which we have referred, has been none too soon. For the total value of annual imports has come up to the high figure of about nine crores of rupees and it appears that the figure is still on the increase.

Mahomedan Cotton-Mills and Ginning Factories

In the very important department of Cotton-Mill Industry also, the Mahomedans have not failed to take their proper share of work. In the *Indian Textile Diary* for 1908 compiled by Mr. W. H. Gribbin and published under the auspices of the Indian Textile Journal of Bombay, we find names of no less than five big Bombay Cotton-Mills either owned or managed by Mahomedans. These are (1) the Currimbhoy Mills, (2) the Mahomedbhoy Mills (Extension of the Currimbhoy

* The names of the proprietors of the remaining sixteen factories and of the localities where such factories are situated are as follows:—(1) The Hon'ble Lala Sukhbir Singh, Muzaffarnagar; (2) The Hon'ble K. Kushalpal Sing, Kotla, in the district of Agra ; (3) B. Janki Pershad, Fatehpur-Sikri, in the district of Agra; (4) Court of Wards, Bareily ; (5) Mr. Raghunandan Pershad, M. A., Bareily ; (6) H. H. the Maharaja of Benares, Aurai, in the distriet of Mirzapur ; (7) Ch. Anup Singh, Nohtaur, in the district of Bijnor ; (8) K. Ragho Pd. Narain Sing, R. B., Baraon, in the district of Allahabad ; (9) B. Prayag Narain, Lucknow ; (10) Government Farm, Partabgarh; (11) Kanhaya Lal Srikishen, Chouderi, Gwalior State ; (12) Maya Ram Deokishen, Khujner in the district of Narsingarh ; (13) Mr. Dalassar Gossain, Barpathar (Assam) ; (14) H. H. the Maharaja of Rewah, Rewah ; (15) The Jehangirpur Association, Jehangirpur, in the district of Bulandshahr ; (16) The Pure Sugar Co., Nabha (State).

Mills), (3) the Fazulbhoy Mills, (4) the Ebrahimbhoy Pabany Mills and (5) the Elphinstone Mills (owned by Hajee Mahomed Hajee Esmail & Co.). About two lakhs and a half spindles and 1344 looms are working in these mills. Besides the cotton-mills to which we have just referred, there are a large number of Cotton-Ginning Factories in India which are either owned or managed by our Mahomedan brethren. Of the numerous Cotton Ginning and Pressing Factories established in the cotton-growing districts of the Bombay Presidency, the Berars, the Central Provinces, Malwa and the Punjab, no less than sixty are either owned or managed by Mahomedans. Outside Bombay City and in the Bombay Presideney, there are more than thirty of such Cotton-Ginning Factories. And in the Berars and the Central Provinces there are no less than fourteen of them, and in the Punjab, there are about six; while the rest are more or less distributed in Malwa, Nemar, the United Provinces and Burma. (Vide *Directory of Indian Goods and Industries*, published by the Indian Industrial Conference, Amraoti). These Cotton-Ginning Factories are no doubt so many important feeders of cotton mills in India

Bengal Silk Mills Co.: A Successful Mahomedan Enterprise

The manufacture of silk is carried on in India mostly by means of hand-looms and rarely with the aid of steam-engines. The hand-loom silk industry is most thriving in the Kashmir State, and in some parts of Bengal and of Southern India. In Kashmir no less than 70,000 hands are finding employment in it; while in Southern India there is a highly organised Silk Factory, namely, the Minakshi Silk-cloth Factory of Madura. In contrast with this extensive hand-loom silk industry there are only four Silk Factories worked with the aid of steam-engines in India, three being in the Bombay Presidency (of which two are located in the Bombay City and one at Poona). The fourth is in Bengal; and it is no doubt a gratifying circumstance that this, the only silk-mill in Bengal worked by steam-power, which goes by the name of the Bengal Silk Mills Co. Ld, is a Swadeshi organisation, being the result of Mahomedan energy and capital. The Bengal Silk-Mills Company has a history of its own, and that history is so very instructive and the life-history of its present Managing Proprietor, who is a silk expert and who has since risen to be a member of the reformed Bengal Legislative Council, is also so very instructive, that we make no apology for writing about this enterprise somewhat in detail. An account of this highly organised factory will supply to our readers striking evidence of the growth of a spirit of constructive Swadeshi among our Mahomedan brethren.

The Bengal Silk Factory was started about 1882 by a Surat Mussalman, who established himself permanently in Calcutta, and since that time has been successfully competing with foreign silks of Germany and Japan. It is at present a Joint-Stock Company, the shares of which are all divided among the sons of the founder and is under the guidance of one of the proprietors, the Hon'ble Mr. Ghulam Hossain Ariff, the merchant prince of Amratalla, Calcutta, who is himself the manager of the Factory. He is a silk-expert and a splendid businessman. His experience and insight into the true scope of his business has been of great help to him in his successful fight with so formidable a rival as Japan, Japanese silk having established itself in the Indian market. Mr. Ariff fears nothing however from foreign silks, whether of Germany or of Japan, provided the silks are genuine and not artificial. For in Europe they have manufactured what is called artificial silk, being not real silk, but prepared from vegetables. It looks like silk and has a very fine gloss, but if put into hot water, the entire thing will be melted at once.

The Bengal Silk Company's Mill manufactures all sorts of genuine silk "Saries" and "Chadars" and is supplying Bengal with what is called Bombay and Parsi "Saries." Every process in connexion with the manufacture is carried on with the help of power-looms. Even ironing and drying of wet clothes are performed with the aid of machinery. The wet clothes are dried within a very short time by putting them into a centrifuge which is set in motion by connecting it with the steam engine. The blending of several colours to work flowers upon the "Saries" is also performed with the help of the machinery. There is also a Dyeing Department attached to the Factory in which natural silk, which is yellow, is first bleached and made white and then dyed with such colours as appeal to the tastes of Indian consumers. The raw materials used in the Factory are all brought from Murshidabad. The Factory is situated in the heart of the city of Calcutta on the east side of the canal, within a few minutes' walk from Ultadanga bridge and covers a very big compound of many bighas of land.

Mr. Ariff has a European assistant who acts as foreman in charge of his Factory. It is to be regretted that there could be found no Indian who is capable of taking charge of the Factory. When asked why he appointed a European and not an Indian to the post, Mr. Ariff replies that an Indian with the necessary qualifications was not available. It would be interesting, therefore, to note the methods adopted by Mr. Ariff's father to give his son such training as has made Mr. Ariff a silk expert and so competent a manager. Mr. Ariff had

to begin work as a cooly boy in the Factory with one anna as his wage per day. While he was working in the Factory his father never made any distinction between him and other workmen, and Mr. Ariff was fined, warned and chastised very much like other employees. Only when he was off duty did his father receive Mr. Ariff as his son. Only by dint of steady work and ability did he work his way gradually to the managership. He is now his own carpenter and can even weave silk himself.

III. Constructive Swadeshi Enterprises in which Mahomedans are associated with Hindus in the Management

In the foregoing account we have presented a running view of some of the more important Swadeshi enterprises which owe their inception and development exclusively to Mahomedan intellect, energy and capital. We are sure our readers must have been impressed by the progress which Indian Swadeshi has been able to achieve through efforts of our Mahomedan brethren. As already remarked, the Swadeshi movement in India, properly speaking, is not a thing of yesterday—although it received an impetus of late owing to certain extraordinary circumtances in the Indian political world. The Mahomedan side of Indian constructive Swadeshi, like the Hindu side of it, does accordingly go back to pre–"Swadeshi" days, some of the more important Mahomedan industrial undertakings belonging to that period. Having said so far we find that we cannot take leave of our subject without making some passing reference to another side of the question, namely, the association of Mahomedans with their Hindu brethren in the management of several Swadeshi concerns. Thus, if we broaden our vision, we will find that example of Swadeshi enterprises in which the Mahomedans have co-operated with their Hindu brethren in their management, are not so very rare. There are instances in which the Mahomedans are not only share-holders, but are also, side by side with the Hindus, on the Directorate and sometimes constitute exclusively the Managing Agency. "Thus, the *Bengal Hosiery Co., Ld.*, of Calcutta, which is one of the largest undertakings of its kind in Bengal, has secured the services of that well-known Mahomedan gentleman, Mr. A. H. Ghuznavi in its Managing Agency, Mr. Ghuznavi supervising the entire business. Another distinguished Mahomedan gentleman of Calcutta. Mr. A. Rasul Esq. Bar-at-Law, holds the office of a Director on two such Swadeshi enterprises as the Co-operative Navigation Ld., 14, Hare Street, Calcutta, and the India Equitable Insurance Co., Ld., 98-3 Clive Street, Calcutta, which mainly owe their origin to Hindu initiative. Similarly also, as

it appears from the first *Directors' Report* ending 31st December 1908, the Kashi Glass Manufacturing Co., Ld., of Benares City, in the United Provinces, has on the Directorate, besides Hindu gentlemen, a leading Mahomedan representative like Maulvi Makbul Alam, B. A., LL. B., Vakil, Zemindar, also Municipal Commissioner, Benares. In the Madras presidency we have also similar illustration of Mahomedan co-operation. One of the biggest Swadeshi enterprises of the Presidency, namely, the Madras Central Urban Bank, Madras, has for its Vice-President the leading Mahomedan townsman, the Hon'ble Nawab Syed Mohomed Bahadur, who is also the Vice-President of another Swadeshi organisation, the National Fund and Industrial Association, Madras. Similarly, also, a Mahomedan gentleman, Mr. Haji Ismail Sait by name is on the Directorate of the recently started Glass Factory at Madras, with two Hindu and one European gentleman as his colleagues. We will conclude by citing the case of the Eureka Manufacturing Co., Ld., Dalhousie Square, S. W., Calcutta, which is one of the best examples of Hindu-Mahomedan co-operation in the cause of Swadeshi. It should be noted that about the beginning of the Swadeshi movement a small Porcelain Factory was experimentally started at Giridhi by Mr. M. N. Dutt under the patronage of the Hon'ble Mr. Justice Sharffuddin of Calcutta. After a prolonged investigation carried on for over three years into the character and quality of the requisite raw materials available in India, the promoters of the Factory were satisfied about the future of their Factory; and they have accordingly of late floated a Registered Joint-Stock Company under the title mentioned, namely, the Eureka Manufacturing Co., Ld., with an authorised capital of one lakh of Rupees divided into 10,000 shares of Rs 10 each. It is understood that the Company will begin operations at once.

The importance of the Company from our point of view arises from the fact that on its Directorate we have no less than five Mahomedan gentlemen of position and respectability—three of them being well-known merchants and the other two Advocates of the High Court of Calcutta. These are associated in the Management with three leading Hindu gentlemen of Calcutta, as the following list will show. *I. Mahomedan Directors:*—Haji Noor Mahomed Jackeria (Merchent), Sulaiman Ariff Bham Esq. (Merchant); Muhammad Kalamian (Merchant, also Managing Director, Bengal Steam Navigation Co. Ld.), Syed Sultan Ahmed Esq. (Bar-at-Law), Syed Ahmed Sherffuddin Esq. (Bar-at-Law). *II. Hindu Directors:*—The Hon'ble Babu Bhupendra Nath Basu, M. A., B. L., (Member, Supreme Legislative Council), Sj. Brajendra Kishore Roy Chaudhury (Zemindar, also Treasurer, Hindusthan Co-operative

Insurance Society, Ld.), Sj. Surendra Nath Tagore, B. A., (Zemindar, also General Secretary, Hindusthan Co-operative Insurance Society, Ld.)

SWADESHI INDIA OR INDIA WITHOUT CHRISTIAN INFLUENCES: AN EXPOSITION AND A DEFENCE—PART VIII

(Continued from pp. 25-32 of the February, 1910 number of this journal)

SECTION XXV

Like Java and Cambodia, Ceylon is also geographically outside India; but the forces of Indianisation extended to that island and permeated the arts, literature, language and religion and institutions of the Sinhalese people in a way that could hardly at this distance of time be conceived of by the modern Indian, or, for the matter of that, by the European. And yet such Indianisation of Ceylon was no figment of the Indian scholar's or the Indian patriot's brain. We have already seen that Sinhalese culture was so utterly Indian that "of the Sinhalese works which have come down to us, ancient as well as modern, so great is the predominance of those in Pali and Sanskrit, that the Sinhalese can hardly be said to possess a literature in their national dialect." (*Vide* Sir Emerson Tennent's *Ceylon*, vol. I p. 514). We have already dwelt at some length on this literary aspect of Sinhalese culture, (*vide* January, 1910, number of this journal, pp. 13-16), and we have referred to it in a general way as the result of the dominance of Indian culture-influence on Sinhalese life. But what we have to note here specially is that this Indianisation in the department of Sinhalese literature and language was the result of *religious forces* which came from India in the 3rd century B. C. and which has, up to now, maintained its supremacy notwithstanding the lapse of centuries. Here, then, was the secret of the thorough transformation of Sinhalese life along Indian ways. And the charitable and benevolent institutions like the Sinhalese hospitals, which as we have so often mentioned, dates from the days of Asoka and whose predominance may be marked till the 13th century A. D.,—the days of the Sinhalese king, Parakramabahu,—may all be traced to the same religious influence. Language, literature, the arts, and works of charity, all alike bear the impress of a force which was religious in every detail. And it sounds like a mockery to be told by some of our Christian friends that the great philanthropic and benevolent works in which both kings and the people participated in India and in an Indianised country like Ceylon since the 3rd, the 4th, or the 5th century before Christ,—that all this stream of benevolence and charity could never have flowed, because, forsooth, Christianity was born into the world later; because in the opinion of so many of our Christian missionary friends–"the mighty system of Paganism in India, whether Hindu, Buddhist or Mahomedan, are alike destitute of all those fruits of Christianity which we often term charitable, philanthropic, benevolent"—because, to quote their language, again, "hospitals, dispensaries or orphanages, asylums for the leper, the blind, the deaf and mute have no place in the heathen economy." (*Vide*, for a full statement of the Christian standpoint, pp. 109-110 of July, 1909, number of this journal).

In a study, therefore, of the subject of Sinhalese hospitals as the outcome of the religious atmosphere or environment created and maintained in Ceylon by the forces of that mighty indigenous

religion of India,—Buddhism, we have clearly to bring out the salient features of such religious Indianisation of Ceylon, in order that the reader may enter deeply into the spirit and the significance of those Sinhalese institutions of charity, and benevolence. That,—as the result of such religious influence prevading the atmosphere of Ceylon in days gone by,—the hospitals of that island were not mere official organisations of the usual bureaucratic type,—that while professing to extend the benefits of charity they were not soulless machines, like so many of our modern public organisations conducted on mechanical lines,—that these Sinhalese Buddhist hospitals represented a high level of progress on their moral side also, would appear even from a short description of them as they existed in the days of Buddhist supermacy in the island. **"Out of benevolence entertained towards the inhabitants of the island, the Sovereign provided hospitals and appointed medical practitioners thereto for all villages.** The Raja having composed the work "Sarattha-sangaho" containing the whole medical science ordained that there should be a physician for every twice-five (ten) villages. He set aside twenty royal villages for the maintenance of these physicians ; and **appointed medical practitioners** to his elephants, his horses and his army. **On the main road, for the reception of the crippled, deformed and destitute, he built asylums in various places,** provided for the means of subsisting (these objects) * * Thus the Raja for the future medical treatment of the diseases with which the bodies of the people of this land might be afflicted **provided physicians.** * * The indigent he rendered happy by distribution of riches among them ; and he protected the rich in their prosperity and life. The wise ruler patronised the virtuous, discountenanced the wicked, and comforted the diseased by providing medical relief." (*Vide* the Ceylonese chronicle,—the *Mahavanso*, pp. 245, 247, 242, vol. I translated (1837) by Hon'ble George Turnour of the Ceylon Civil Service). In the above description we find reference not only to **hospitals** but also to **asylums** for the crippled, the deformed and the destitute ; not only provision for medical relief for *men*, but also for *beasts* ; and we find further "hospitals established and medical practitioners appointed thereto **for all villages.**" And all this was the order of the day in Ceylon in the days of the Sinhalese King Buddha-dasa of the 4th century A. D. [to whom the above reference applies and who commenced to reign about 341 A. D. according to Turnour (*vide*, his Translation of *Mahavanso* vol. I, p. 242), or two years later according to Wijesinha, one of our present-day scholars who has completed the work of translation of the *Mahavanso* begun by Turnour in vol. I.] Contrast with this the state of things in Europe as we find recorded in that recognised authority—the *Encyclopædia Britannica* (ninth edition)—vol XII, p. 301. There we read that the earliest hospitals in England dates form about 1080 A. D., *i.e.* from the latter end of the 11th century ; while Mr. Vincent Smith (who, however, does not give any authority for his statement), states in his *Early History of India* (2nd edition, p. 280), that "the earliest hospital in Europe, the *Maison Dieu* of Paris is said to have been opened in the 7th century A. D.," although in the first edition of that work he considered that it was "opened in the 10th century." Further, according to the *Encyclopædia Britannica*, "the great movement in hospital-building took place in Europe in the 18th century." (*Ibid*, vol. II, p. 301) ; while that well-known authority, Mr. Lecky, in his

History of Rationalism in Europe (vol. II, chap. VI) speaks of the "vast network of hospitals that overspread Europe after the Cursades," *i.e.*, after the 13th century A. D. when the Crusades ended. Contrast with this the state of things in India and in Ceylon. In India during the centuries 250 B. C. to 750 A. D., says the *Imperial Gazetteer* (vol. IV, p. 457)—long anterior to the birth of hospitals in Europe—the "public hospitals established by Buddhist princes in every city in India" was a feature of the age. And in Ceylon under the same religious influence while the public hospitals date, as in India from the 3rd century B. C.,—they continued to be built, as we shall show, till the 13th century A. D. The contrast is complete; and the claims of Christianity as having ushered in the *regime* of "charity, benevolence, and philanthropy" in this ancient land of ours, or in an Indianised country like Ceylon, where Indian religious influences had dominated the people since days long anterior to the birth of Christianity,—must, therefore, fall to the ground.

Therefore, the study of Sinhalese hospitals as part of a study of Swadeshi India untouched by Christian influences can only be conducted in the light of the Indian religious influences at work in the island from time long anterior to Christianity,—Indian influences which in those days transformed and elevated Ceylon into a province of India;—influences which give point to the remark of a distinguished Sinhalese scholar and writer, Dr. A. K. Coomaraswamy, D. Sc., that "the Sinhalese themselves are Indians." (Vide *Mediæval Sinhalese Art*, p. 18).

PROGRESS OF TECHNICAL EDUCATION IN NATIVE INDIAN STATES—PART II

(Continued from pp. 22-24 of February, 1910 number of this journal)

VIII Manual Training Classes and Kindergarten Teaching

There are six schools in the State of Baroda where manual training has been introduced as part of general education. These are at Pattan, Visnagar, Kadi, Billimora, Sojitra and Amreli. Boys of the standards IV, V and VI are allowed to join the Manual Training Classes. Courses of instruction comprise Drawing, Carpentry and Clay-modelling. The total number of students undergoing this training came up at the end of 1908, to 1,330, of whom 812 presented themselves for examination and 686 passed. Being well aware of the educational possibilities of manual training, and satisfied with the results already attained from the new departure, the Education Department of the State has adopted the policy to multiply these classes and gradually make manual training an organic part of the school system and general education, throughout the State. Thus, the Kindergarten system of teaching, the value of which cannot be minimised, has been introduced into all the schools of the State. The power of observation, careful study of the mind of the child, tact and similar qualities are essential to successful teaching in this system. The Department contemplates giving special teachers for this subject in some of the schools as an experiment, while a copy of the translation of the *Paradise of Childhood* has been supplied to each school.

IX Agricultural Education

As regards Agricultural Education, the State of Baroda maintains an Agricultural School and a Farm called the Baroda Model

Farm, at Baroda. The boys are taught theoretical work in the School and practical work on the Farm. A new curriculum aiming at a more thorough and efficient study of practical agriculture was prescribed and sufficiently attractive scholarships were offered during the year before last. It is expected that under the new course, the students after completing their studies in the School will become good farmers, who would be able to take charge of Farms. There were 9 students on the rolls at the end of July, 1908, while before that time, at the time of the annual examination, there were 12 students in the senior class and 5, in the junior class.

As already observed in connection with the *Schools for Forest Tribes*, there are Boarding Schools for Forest Tribes at Songad and Vyara with farms attached to them where rudimentary agricultural education is imparted to the Dhanka boys along with an elementary course of general education. The central idea is to make these people useful units of society learning to depend upon themselves and not to look for help to extraneous sources. And as agriculture is their hereditary occupation, it was found desirable to teach them these subjects on the recent improved methods. The model farms at Songad and Vyara have gone a long way to make themselves self-supporting, and they furnish a pleasant place for practical work of the students. In the examination held in Agriculture in the year 1908, 84 and 97 boys out of 100 and 100 in Songad and Vyara appeared, and 77 and 76 respectively were successful. Sericulture or the breeding of silk-worms also forms an additional feature of these institutions. At Songad both the boys and the girls learn this subject and hopes are entertained that sooner or later these childern will adopt sericulture as a cottage industry and will be very useful subject of the State.

A model farm of the type at Songad and Vyara is also expected to be established somewhere in the Kadi division of the Baroda State. Besides the agricultural schools and farms stated obove, there are Travelling Instructors who do their work of instructing cultivators and of making experiments in the fields. Efforts are being made to acquaint cultivators with the working of improved agricultural machines such as turnwrest plough, ridging plough, chaff-cutter, threshing machine, clod-crusher, line-harrow and triple plough.

X Industrial Training to young Prisoners

In the opinion of the Government, the period intervening between the ages 16 and 21 being one during which a proper treatment of criminals may effect an improvement in them and win them over from their criminal tendency, the State has introduced in the Central Jail at Baroda, a system of industrial training called the Borstal System as adopted in the prison at Borstal in Great Britain. The prisoners are employed in the workshop or outdoor work such as farming, etc., and are specially instructed in useful trades and industries so as to fit them to earn their livelihood after they are set free. Small sums also are credited to the account of those who show special zeal, industry and good conduct, and a sum not exceeding Rs. 10 per head is paid to them as a gratuity on release. If there is nobody to take care of a prisoner on release, the Jail Superintendent and the Inspector-General of Prisons use their good offices to procure him employment.

XI The Boroda Museum and its Educative Influence

Every Taluka school in the State possesses a fairly large collection of useful specimens, models, charts, diagrams, etc., which are made use of as object-lessons or illustrations for purposes of a better teaching. While the educative influence of the Museum at Baroda is well felt by the people and the Government alike. College students do not fail to take advantage of the collections in Natural Sciences, Geology, Mineralogy, Zoology and Botany. Specimens for practical teaching are often lent to the Female Training College, while the Kala-Bhavan and the Male Training College frequently send their students to the Baroda Museum to study mechanical and other apparatus and instruments. Boys from the city schools also pay weekly visits to the Museum accompanied by the teachers.

XII Students sent abroad for higher Technical Education

Lastly we have to mention that the State has instituted a number of yearly scholarships for the higher technical training of the students both in India and outside. Thus, at the end of the year, 1908 there were one student in England learing plumbing and sanitary engineering; one, learning electrical engineering; one, mining and metallurgy; and one, architecture; while besides these four, the State sent to England in that year two Bengali graduates, at the instance of our world-renowned Bengali scientist, Dr. J. C. Bose of the Calcutta Presidency College, and who were placed under the Doctor's supervision in England in 1908. Further, six students are also every year sent out to the more important of the educational institutions in India outside Baroda for more special training in one or other of the technical arts.

XIII Expenditure of the State on Technical Education

The expenditure on the Kala-Bhavan and on the three Industrial Schools at Padra, Navasari and Amreli came up to the total sum of about rupees seventy-thousand in 1908, against over fifty-five thousand in the preceding year; while the average annual cost of educating each scholar in the Kala-Bhavan was Rs. 87 against Rs. 55 in 1907. The expenditure on the Boarding Schools, for the Forest Tribes at Songad Vyara and Mahuwa came up to a little over twenty-thousand in 1908 against rupees nineteen-thousand in the preceding year. The total expenditure on the two Orphanages at Amreli and Songad was about seven-thousand during the same period. The expenditure on the up-keep of the Baroda Museum came up during 1908 to about rupees twenty-four thousand, while that on the education of students sent abroad amounted to over sixteen-thousand. On a rough calculation the State spends annually about a lakh and a half on the Technical and industrial education of its people, which is about one-eighth of the total expediture on Education by the State.

XIV Conclusion

The example set by Baroda is thus full of promise and of hope. As we proceed with our investigation into the subject of the Progress of Technical Education in our Native Indian States, we shall find that the State of Baroda stands out foremost among them all. And if this is so, the measure of success achieved must be held to be due in no small measure to the inspiring genius of the Gaekwad aided by some of the most distinguished of Indian Ministers of the State •

PART II: TOPICS FOR DISCUSSION

INDIAN NATIONAL SELF-CONSCIOUSNESS AND INDIAN NATIONALITY: VIEWS OF DR. A. K. COOMARASWAMY, D. SC., (LOND.) AND OTHER WELL-KNOWN STUDENTS OF INDIAN CULTURE

I. Not all kinds of Unity are essential to Nationality

"What are the things which make possible National Self-Consciousness and what constitute Nationality? Certainly a unity of some sort is essential. *There are certain kinds of unity which are not essential, and there are others which are insufficient.* Racial unity, for example, does not constitute the Negroes of North America a nation. Racial unity is not even essential. The British nation is perhaps more composed of diverse racial elements than any other, but it has none the less a strong national consciousness. To take another example, many of the most Irish of the Irish are of English origin. Keating and Emmet, for instance, were of Norman descent. But neither they, nor their labours were on that account less a part of an expression of national feeling and self-consciousness. Neither is a common and distinctive language an essential. Switzerland is divided among three languages, and Ireland, between two."

II. Two Essentials of Nationality

"Two essentials of Nationality there are,—a Geographical Unity, and a common Historic Evolution or Culture."

"These two India pessesses superabundantly, besides many lesser unities which strengthen the historic tradition. The fact of India's Geographical Unity is apparent on the map. The recognition of Social Unity—the Unity of Culture is at least evident to the student of Indian Culture."

III. Unity of Indian National Culture: How the Idea was appreciated by Past Indian Rulers

The idea of a Social Unity, of a United Indian national Culture has been grasped more than once by individual Indian Rulers,—by Emperors Asoka, Vikramaditya, and Akbar. And more, it was recognised before the Mahabharata was written. Thus, when Yudhisthira performed the Rajasuya Sacrifice on the occasion of his inauguration as sovereign, a Great Assembly (सभा) was held, and to this Assembly came Bhishma, Dhritarashtra and his hundred sons, Subala (king of Gandhara), and a host of others, chiefs and kings from the extreme South and North, from Dravida, from Ceylon, from Kashmir. That this picture is not at all exaggerated would be amply borne out by a reference to the account given in the Mahabharat on the subject. For, among the names of kings and countries mentioned there we read of Pragjyotisha (which has been identified as Assam), Malava, Andhra-desha, Chiefs of Hill Tribes, Vahlika (or the territory between the Ravi and the Beas rivers in the Punjab), Kashmir, Sinhala and Dravida. Thus at the Imperial Durbar, Emperor Yudhisthira invited kings from the remotest parts of India and beyond, to render him homage. After Yudhisthira,

remarks Mr. Vincent Smith, the author of *The Early History of India*, (2nd edition, p. 6), "twice the political unity of all India was nearly attained first, in the 3rd century B. C., when Asoka's Empire extended almost to the latitude of Madras, and again in the 4th century A. D., when Samudragupta carried his victorious army from the Ganges to the borders of the Tamil country. Other princes, although their conquests were less extensive, yet succeeded in establishing, and for a time maintaining, empires, which might fairly claim to rank as paramount powers."

Among these "other princes" was the renowned Indian Emperor, Harshavardhan of the 7th century A. D., who has been immortalised in Harshacharita by Bana, a Brahman author who lived at his Court and enjoyed his patronage; and who invited the famous Chinese traveller Hiuen Thsang to accompany him to Prayag (Allahabad) at the confluence of the Ganges and the Jumna, to witness the great quinquennial assembly to be held by him "to distribute his accumulated treasures to the poor and needy, as well as to the religious of all denominations."

"The sway of Harsha extended," says Mr. Vincent Smith, "in the later years of his reign over the whole of the basin of the Ganges (including Nepal), from the Himalaya to the Narmada, besides Malwa, Gujarat and Surashtra. And even the King of distant Assam in the *East* obeyed the orders of the suzerain, whose son-in-law, the king of Valabhi in the extreme *West* attended the Imperial train" (*Early History of India*, 2nd edition p. 314). And "in Mediæval India, we come across the name of Akbar, whose throne at Delhi was the centre of the political system of the time, the rallying point of diverse races and creeds, and the unity of a centralised Government helped men to realise that the whole area over which it extended was physically a *single* country."

The inference of a Unity born of a common Indian Culture may, in the opinion of Dr. Coomaraswamy, be drawn also from Indian legends. "In legends too," says he, "we meet with references to councils or motes of *devas* or Gods, held in the Himalayas, whither they repaired to further common ends."

IV. Unity of Indian National Culture: How this Idea was sought to be promoted by the Founders

Not only was the idea of a united Indian National Culture sought to be promoted by Indian political leaders; but, more than all this, "there is evidence that the founders of Indian culture and civilisation and religion (whether you call them Rishis or men) had this Unity in view." And "the manner in which this idea," observes Dr. Coomaraswamy, "pervades the whole of Indian culture is the explanation of the possibility of its rapid realisation." So also another authority, a distinguished Indian Mahomedan, Mr. Abdullah Yusuf Ali, M. A., LL.B. (Cantab), I. C. S., in his well-known work, "*Life and Labour of the People of India*" (1907) remarks—"The diversity of social phenomena in India is a fact visible on the surface. But the groundwork on which the diversity is traced,—the underlying uniformity of life from the Himalaylas to Cape Comorin, is often lost sight of. The unity of Indian life is not confined to

those points which it shares in common with the rest of the world. All its infinite variety hangs on a common thread of a somewhat distinct Indian colour *(Ibid, p. 305)*. So also, another author whom we have already quoted,—a European, Mr. Vincent Smith, declares—"India, encircled as she is by seas and mountains, is indisputably a Geographical Unit and, as such, is righty designated by the name. *Her type of civilisation, too, has many features which differentiate it from that of all other regions of the world, while they are common to the whole country, or rather continent, in a degree sufficient to justify its treatment as a Unit in the history of human, social and intellectual development.*" *(Early History of India, p. 57)*.

The same testimony is borne also by another European—a European lady, Sister Nivedita, who has made India her home :—"The first treasure of a nation, *geographical distinctness*, India undeniably possesses, in an extraordinary degree. Around her feet the sapphire seas, with snow-clad mountain heights behind her head, she sits enthroned and the races that inhabit the area thus shut in stand out as sharply defined as herself, against the Mongolians of the North-East, and the Semitics of the North-West. Within this land, Aryan ideals and concepts dominate those of all other elements. There is a self-organisation of thought that precedes external organisation, and the accumulation of characteristics in a single line which this brings about, is what we mean by racial types." *(Hindustan Review, January, 1910, p. 11)*

We will continue our exposition of this subject in our next —the April, 1910 issue.

SWADESHI CULTURE AND INDIAN NATIONAL LIFE: FOUR STRIKING SUGGESTIONS BY MR. E. B. HAVELL

In Mr. Havell's opinion, "to restore the constructive powers of the Indian mind to their full capacity should be the first and chief aim of all Indian reformers and politicians. This aim can be attained much more effectively and quickly through the revival of national culture and national art than by agitation for political rights." The above is a quotation from one of his letters to the *Hindu* newspaper of Madras. In another letter he lays down a number of "practical proposals" for the promotion of this Swadeshi culture, and with especial reference to the revival of Indian artistic culture, the writer declares that the cause of *Indian Art* and of *Indian Nationality* are not two, but one. Says he,—"Indians will certainly gain immensely, not only morally and intellectually, but even politically, by ceasing to imitate European fashions indiscriminately, for this very lack of discrimination, which educated Indians have shown, discredits them greatly in the eyes of Europe. Only when Indians can make Europe feel that they have as much to teach Europe as they have to learn from her, will they fully justify their claim to the same political rights as Europeans enjoy." The four following suggestions are among Mr. Havell's "practical proposals" for the promotion of a true Indian national life, which could without much difficulty be adopted by all true lovers of Indian Nationalism :—

Firstly, "let all furniture and decoration for Indian houses, even chairs and such-like furniture of European origin, be made distinctively Indian in design, not merely imitations of European forms. And let Indian dress be worn by Indians in Indian houses. So will Indians and Indian craftsmen develop creative and constructive powers of thought."

In support of the above, the observations of Dr. Coomaraswamy in a letter to the *Hindu* may be quoted :—At present, Indians are not content to be politically and economically dependent, but must fawn upon their rulers to the extent of anglicising their homes and their lives. I am not surprised at the statement made by Mr. Burns in his lecture, *The function of Schools of Art in India,* that out of over two hundred presents at a fashionable Indian wedding, only sixteen were of Indian origin."

Secondly, "let the great events of national history, and the moral teaching of the national epics, be impressed strongly on the minds of Indian children by concrete images on the walls of school buildings, instead of only by word-impressions derived from books and oral teaching. But such pictures must always be painted by Indian artists, with Indian colours and in Indian ways of expression."

Thirdly, "let religious festivals and political meetings be marked as much by the planting of fruit trees and flowering trees as by prayers and vows and speech-making."

Fourthly, "let Indians take an intelligent interest in Art, by reviving the old *chitrasalas* in which *Indian subjects are painted on the walls* by *Indian* artists in an *Indian* way."

Industrial India : Sir Theodore Morison's views criticised

Sir Theodore Morison, M.A., K.C.S.I., Member of the Council of the Secretary of State for India, in course of a lecture recently delivered at the London School of Economics, observed that the old economic order from which India is emerging was the isolation and consequent self-sufficiency of the village or small locality ; the imperfect division of labour, the smallness of the capital employed in each unit of production, and the direction of industry by the labourer. The Industrial Revolution, he proceeded to observe, which began in England in the 18th century assisted in reversing similar conditions in that country, and by reversing them secured the output of a far greater volume of wealth. In England, he said, the new economic structure superseded the old because it was more efficient, because it resulted in the production of more wealth ; and for the same reason, India was re-arranging her industrial structure. The parallel of the Industrial Revolution in England is, no doubt, useful so far as it goes, but we do not know that it is so exact as Sir Theodore Morison would put it. *The self-sufficient economic unit of the village and town existed in India along with a developed and comparatively enormous production of manufactured goods for foreign markets in cloth, jute and other industries under the old methods.* Nor can it be said that the new economic structure, in which India imports nearly all her manufactured products and exports huge quantities of raw products of agriculture has superseded the old, because it is more efficient.

PART III

SECTION I : NATIONAL EDUCATION MOVEMENT

MOVEMENT FOR EDUCATION OF THE DEPRESSED CLASSES AND OF THE MASSES GENERALLY*—III

Beginnings of work in Bengal.—(*Continued*)

I

In the second article on the subject of the Education of the Depressed Classes of Bengal, which appeared in the February, 1910 number of this magazine, we gave detailed accounts of three important Primary National Schools in the district of Backergunge which provided for such education. We are in a position to mention some twelve more such schools in the same District which amidst great difficulties were able to fight their way in 1908. We propose in this number to give very short accounts of these, and although it must be admitted that they do not show considerable progress, being in fact in their infancy, it must never be forgotten that they represent the unaided efforts of a people who are beginning to feel their way in the matter, and that such efforts do possess a value which must not be measured by the amount of actual success achieved. We would therefore ask our readers to go through such short accounts of them as we have been able to gather, since they would furnish evidence of constructive work by humble workers in the mofussil, and further they would show that the direction of work has been along right lines from the educational as well as the social point of view.

If Backergunge has been able to show such substantial record of work, it is clear that other Districts also, if their leaders are so minded, can aquit themselves equally well. And so, in course of time, the total amount of educational and social work that might be achieved through the opening of Primary National Schools for the instruction of the depressed classes and the poorer sections of the Hindu-Mussalman masses, may reach such high proportions that it may indeed be a matter of wonder to many of us in the future that it took us such unconscionably long time to decide on and take up in right earnest this line of action. That the idea is not wholly academic, that indeed it is capable of realisation if the people of our Districts are really anxious about the progress of education among the poorer and the depressed classes,—has been further shown by the record of over two years' systematic work done in another District, the district of Faridpur in Bengal, under the leadership of its Grand Old Man, Babu Ambika Charan Mujumdar, M. A., B. L. Certainly, every District Association organised by the people ought to have in its programme the kind of educational and social work which we are discussing, and it is therefore right and proper that the Faridpur District

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* *Continued from pp. 15-20 of the February, 1910 number of this journal*

Association of which Babu Ambika Charan Muzumdar is the honoured President, should have gone straight to its work by including the opening and maintenance of Primary National Schools for the education of the poorer and depressed classes in its programme of duties. The Association started on its work in the month of August, 1907, and the records of the Association go to show that already no less than 25 such schools have been started and are being maintained by a system of grants-in-aid and are successful. In the first year of its existence, the Association maintained no less than 16 schools (of which one dropped out), to whom monthly grants were made; and in the 2nd year some ten more such grant-in-aid schools were added through the efforts of the Association. In the first year the total number of students reached the figure of about 700, and in the second year—the number went up higher still and at present it comes up to over 1200—which no doubt is a pretty high figure having regard to all circumstances. This is no doubt very encouraging and we must congratulate the Faridpur District Association and all concerned in the work on the splendid beginning they have been able to make in this, as it appears to us, all-important matter.

With the growth, both in number as well as in strength, of these schools the Association is strongly feeling the necessity of some sort of efficient inspection and supervision over these schools. Several letters were addressed to the Council of National Education, Bengal for (1) affiliation of these schools without however any money grant from the Council, (2) appointment of an Inspector by the Council for inspection of these and other schools established by local bodies or associations in other districts, (3) fixing a suitable and uniform curriculum of studies for all such schools, and (4) prescribing certain examinations for the boys of these schools. It is a matter of extreme regret to the Association, as its President informs us, that "to none of these suggestions and prayers my Association has received a satisfactory reply." The Association has at last decided upon entertaining an Inspecter of its own for at least some months in the year on a salary of Rs. 50 a month. In the opinion of the Association the arrangement is not quite satisfactory; but with its very limited resources the Association, we are informed, can do no more at present. With reference to the question of the appointment of an Inspector by the National Council, Bengal, who will work not for a few months in the year, but all the year round, the President in writing to us on the subject makes certain remarks which we deem it right to quote in full:—"In establishing these schools the Association insists upon compliance with certain prescribed and printed forms of its own. A school committee is always required with some reliable person as its Secretary. Much of these precautions might well be dispensed with if an all-the-year-round Inspector could be employed. I am sorry the Council of Education does not yet seem to recognise the excellent opportunity presented to it of exercising a healthy control over these indigenous institutions and extending its own sphere of influence and usefulness as an Educational organisation."

II

With the foregoing words by way of preface, we proceed to a description of the following twelve Primary National Schools in the district of Backergunge for the education of the poorer and the depressed classes.

Kachuakati School

A primary school was originally started in 1905 at Kachuakati within the Kaukhali thana, with a view to impart education according to Hindu methods; but since October, 1907 the school has been imparting education according to the syllabus prescribed by the National Council. The school is located in a beautiful house of its own. Through the efforts of the villagers, the school has got all the necessary furniture. The number of students at the end of the year 1908 was 44. The people of the village being mostly blacksmiths and Telis, efforts are being made to make provision for the teaching of smithy on the technical side of the school. There are two teachers in the school. Monthly income consists of school-fees and subscriptions. Average monthly expenditure amounted to Rs. 12 only.

Dandarat School

An Upper Primary School was started in August, 1903, in the village of Dandarat, Thana Sarupkati. The school was recognised by the National Council in 1907. At the end of the year 1908 there were 54 students on the rolls. There are two gentlemen on the teaching staff. The village being a place chiefly of the black-smith caste, provision has been made to teach to the students cutlery for which the village is so famous in the District. Monthly receipts consists of school-fees and subscriptions. The National Council's grant for the year 1908 was rupees forty only. Average monthly disbursement amounted to rupees eleven only. The management of the school is in the hands of local committee.

Beldakhan School

A primary school was started at Beldakhan near Jhalakati in January, 1904. The school began to teach according to the syllabus of the National Council in October, 1907. There were 42 students on the rolls at the end of the year 1908, of whom nineteen were girls. There are two teachers in the school. Monthly income consists of school-fees and subscriptions. Average monthly expenditure for the year 1908 amounted to rupees twelve only.

Baruhar School

A primary school was started in June, 1903 at Baruhar near Jhalakati. The school adopted the Scheme of Studies of the National Council in December, 1907. There were 42 students on the rolls at the end of the year 1908. There are two experienced teachers in the school. Boys are being taught on the technical side the manufacture of various household articles from bamboo, palm-leaves, paper and clay. The accommodation of the school is a spacious one and the furniture of the school is also not insufficient. On an average the school receives monthly Rs. 5 as school-fees, Rs. 2 as subscriptions

and Rs. 5 as extra-subscriptions from the members of the school committee. Average monthly expenditure amounts to Rs. 12 only.

Purba Beukhir School

A primary school was started in August, 1907 at Purba Beukhir near Jhalakati. The school began to teach according to the Scheme of Studies of the National Council in October, 1907. The number of students at the end of the year 1908 was 33, of which 16 belonged to girls. The school has also made provision for the industrial training of the students. At present some of the students are learning paper-cutting and clay-moulding, while others, spinning only. The school has spacious accommodation. It has got the necessary furniture. On a monthly average the school received in the year 1908, Rs. 3 as school-fees, and Re. 1 as subscription. The National Council granted Rs. 20 to the school for the year under notice. Average monthly expenditure amounted to rupees five and a half.

Brahmantitna School

A primary school was started in 1905 at Brahmantitna near Kaukhali. The school adopted the Scheme of Studies of the National Council in the year 1907. The number of students at the end of the year 1908 was 40 only. There is only one teacher in the school. The students at present receive no proper technical training, but they are learning to manufacture various articles from clay and paper. The school receives on a monthly average rupees three as school-fees, rupee one and a half as subscription and rupee one and a half as extra-subscription from the members of the school committee. Average monthly expenditure amounted to rupees six only.

Dakshin Garangal School

There is a primary school of long standing in Dakshin Garangal, a village near Jhalakati and chiefly inhabited by the depressed classes, the Namasudras. The authorities of the school having applied to the National Council of Education for help, the school was granted the sum of rupees eighteen for the year 1908. The school has since been remodelled on the lines prescribed by the National Council. There were at the end of the year 1908, 37 students on the rolls, of whom 32 were Namasudras and the rest Mahomedans. There is only one teacher in the school. The Secretary of the school, who is an expert in the manufacture of fly-shuttle looms of which there is a large sale there, teaches the students the manufacture of the same. Besides, the students are taught to manufacture mats from leaves of a kind of plant called "Hogl", and various articles from clay and paper. A spacious mud-house has of late been erected where the school has been removed. Recurring monthly expenses amounted to about rupees six only.

Dakshin Keora School

A primary school was started in July, 1901 at Dakshin Keora, a village near Jhalakati and chiefly inhabited by a caste of weavers called Yugi. Towards the close of 1907, the school applied for help to the National Council of Education

and was in receipt of rupees twelve as grant-in-aid for 1908. The number of students at the end of the year 1908 was 36, of which 25 belonged to the Yugi caste, and 9 to Mahomedans, while the rest to the Vaidyas. There is only one teacher in the school who is an expert in the art of teaching. On the technical side of their education, the boys are learning the various processes of hand-weaving under the guidance of the Secretary of the school who is a weaving expert. On a monthly average the school received during the period under notice rupees three as school-fees and rupee one only as subscription. Average monthly expenses came up to rupees six only.

Baulkanda School

A primary school was started in August, 1907 at Baulkanda, a village near Jhalakati and chiefly inhabited by the Mahomedans. The school received on application rupees nine as grant-in-aid for the year 1908 from the National Council of Education. The number of students at the end of the year 1908 was 14 only. Most of the students were Mahomedans. The school-house is a spacious one. No provision has as yet been made for the imparting of technical education to the students. On an average the school received every month rupees two as school-fees and the same as subscription. Average monthly expense came up to rupees five only.

Dakshin Challis Kahania School

A primary school, originally started in 1905, at Dakshin Challis Kahania near Rajapur applied towards the close of the year 1907 for help and was in receipt of Rs. 15 as grant-in-aid for 1908 from the National Council. There were at the end of the year 1908, 32 students on the rolls, of whom 22 were Namasudras and 10, Mahomedans. The school has secured the services of an experienced teacher. No efforts have as yet been made to impart technical education to the students. On a monthly average the school received rupees three as school-fees, and rupee one as subscription during the period under notice. Average monthly expenses came up to rupees six only.

Baruhar School

A primary school was started in February, 1907 at Baruhar, a village in the neighbourhood of Jhalakati and inhabited chiefly by the Namasudras. The school has from the very beginning of 1908 undertaken to teach according to the Scheme of Studies of the National Council. There were at the end of 1908, 30 students on the rolls, all of whom were Namasudras. Students are being taught to manufacture fans, mats and other things. The school is located in a separate house of its own. Monthly income came up on an average to Rs. 5, and expenditure to Rs. 6 only.

Bonkura School

A primary school was started in March, 1907 at Bonkura near Jhalakati. A few months after its inauguration the school began to teach according to the Scheme of Studies of the National Council. The number of students at the end of 1908 were 42, all of whom belonged to the Namasudra caste while

9 were girls. On an average the school received Rs. 3 as school fees and Re. 1 as subscription every month. The monthly recurring expenses amounted to Rs. 6 only. The school premises is a very well-lighted and well-ventilated mud-house.

THE PRABHATHAM STUDENTS' PAINTING COMPETITION

Real Indian Art is gradually becoming extinct owing to following European conception of Art. Our Art is gradually becoming more and more imitative than imaginative. Imagination was the real ground-work of all the wonders that have been produced by our Rishis and it was and ought to be the real ground-work of Indian Painting. It is in the hope of encouraging Indian Art among the young generation, that we have introduced this Painting Competition, and we hope that our attempt, will be successful, by many competitors responding to our call.

1. A Painting Competition will be held by the "Prabhatham Association" in April 1910.

2. Two Gold Medals will be awarded to the first two best paintings.

3. The competition will be open to all Indians who shall be students of Fine Arts and other Schools and Colleges, and also students under recognised painters.

4. The competitors shall send their applications certified that they are Indian students, from the Institution in which they are studying or from the teacher under whom they study with an entrance fee of Annas 8 within the 15th of March, 1910.

5. The pictures must be painted, as described in the following Sloka, in Oil Colors, the size being 24″ × 20″.

दर्भाङ्कुरेण चरणः क्षत इत्यकाण्डे
तन्वीस्थिता कतिचिदेव पदानि गत्वा ।
आसीद्विवृत्तवदना च विमोचयन्ती
शाखासु वल्कलमसक्तमपि द्रुमाणाम् ॥

SAKUNTALA, ACT II, SLOKA 12.

N. B.—For full information of the subject see Act I, Sakuntala from, सख्यौ:—आर्य, असम्भाविता अतिथिसत्कारं भूयोपि प्रेक्षणनिमित्तं लज्जावह आर्यं विज्ञापयितुम् to the end of Act I—SAKUNTALA.

6. The paintings shall be sent to the Secretary within the 10th of April, 1910.

7. The two paintings which are awarded medals shall be the property of the Association and the other paintings will be sent back to their owners on receipt of the postage value for sending the paintings back.

N. B.—The full address of the competitors shall be sent with their applications.

PANDIT K. BHASKARA SASTRY,
HON. SECRETARY,
21, Malleswaram, Bangalore.

SECTION II : STUDENTS' COLUMN

"BRINDABAN, THE CITY OF TEMPLES"

A Correction and a Description.

In the January number of the *Dawn* while reading the description of "Brindaban, the City of Temples," the name Dewan Nanda Kishore Bose did strike me a little, as the name Dewan Nanda Kumar Bose is quite familiar to me, I being an inhabitant of the same village, the village Baharu in the 24-Pergunnas, where the Dewan lived and his descendants still live. A little insignificant correction I have to make is that the name of the Dewan is Nanda Kumar, and not Nanda Kishore as it has been put by your correspondent. But the information I propose to give is rather a little too lengthy. It is about the Dewan himself give and can be obtained by any casual observer from the remains yet existing. It is more than a century, that the Dewan left this world. The family of the Dewan is now practically ruined, though the honor of the family is still quite fresh and will remain so for some length of time yet. The Will that the Dewan left is of some reputation in the villages and towns of Calcutta. The benevolent works of the Dewan in the Holy City of Temples, Brindaban, may well be known by the readers of the *Dawn* from the December 1909 number and the January 1910 number of this Magazine. By the Will above referred to he bequeathed landed property yielding 14,000 fourteen thousand rupees a year for the maintenance of Sham Sundar, the household deity established by the Dewan in his native village Baharu 24-Pergunnas, Bengal.

The special feature of the Will is that the details of Seba (सेवा) are fully given, leaving behind no gap to be filled by his successors. The Devattara (देवोत्तर) property is never to be divided among his successors and never to be sold by any of them either severally or jointly. The Devattara properties of many ancient families now ruined are now no longer intact ; but in the case of the Devattara property of Dewan Nanda Kumar this is not likely to be. The Will creating the Devattara provides that his successors can only be Managers of his Devattara estate with a fixed allowance. The Manager is entitled to nothing more than the allowance. The Managership is to be given to the most capable member of the family. The Brahmans and other gentlemen of the village are to look after the management of the estate by enquiring whether the regular rites about the Deity are properly observed or not. These gentlemen if they think that something wrong is being done are to form themselves into a Committee and try to redress the wrong done to the Devattara estate by the Manager whether privately or through the Government. If no capable Manager is to be found in the family, the Managership is to be given to any worthy man or group of men of the village or the locality, and when that is not possible the Government is to come forward to look after the Devattara estate and the regular religious worship of the Diety. *Dole, Durgotsab, Rash-jatra, Jhulan* and

Janmastami are the five principal festivals to be observed in connection with the Deity and the family.

Harishankeertan (हरिसंकीर्तन) is observed daily for about three hours after the evening worship or the *Arati* in the compound of the deity by the village bards called *Bhats* and sometimes the members of the family and of the locality join in it. I may add that the family has preserved in connection with the deity many valuable manuscript shastras some of which are actually read in the Thakurghar or the compound of the Deity in the month of Kartick by learned pandits. The family-house of the Dewan though now in a dilapidated condition still gives shelter to an H. E. School and the Post Office of the village.

Further I may add that the village has two Bhattacharyya families that have produced some learned pandits and have their private collections of valuable Manuscripts of the Shastras. There is another zemindar family in the village worth mentioning; they are the Bhanjas, who have established in the village a metal image of Durga who is worshipped every day. But it is less costly than the household deity of the Dewan Bose's.

KAMALAPATI CHAKRVARTY,
VILLAGE BAHARU,
BAHARU POST OFFICE,
24 PARGANAS.

A VISIT TO MULTAN, THE CITY OF CEMETRIES

I. On the Way to the City through the Zone of Sand

I started from Bhatinda in the Ferozepore District of the Punjab at 3 A.M. early in the morning of the 4th September, 1909. As far as Minchanabad, the air was cool and refreshing owing to the rain that had fallen a day or two before. The landscape, too, was green with verdure. But beyond that, the railway train entered into a quite different region. Instead of verdure, sandy tracts began to appear. At about 9 A.M. I went to sleep, and on waking I found myself all covered with sand, though there was blowing no sand storm. In fact, we were travelling on the north-eastern boundary of the Indian Desert. All around there were arising in view lofty mounds of ever-shifting sand. The land was here and there interspersed over with the date-palm trees. It is said that the Railway Company had applied to construct their line through the fertile portion of the Bhawalpur State, but the Nawab of the State did not grant the application, although he was willing to allow the Railway to pass through this sandy region instead. This part of the country is very hot and arid. The rainfall is very low. But a check has been imposed on the niggardliness of Nature by irrigation by means of canals. It appears from the appearance of the land that in ages gone by, some mighty river ran through the land, which brought down vast heaps of sand from the Himalayas and deposited them here. Tradition relates that some tens of centuries back the Sutlege flowed past the Bhatinda Fort.

In this connection I may note that there is a Persian couplet which says,

with special reference to this sandy tract, that "dust, heat, mendicants and tombs are the four presents of Multan." The couplet runs thus :

Chahar cheezast tuhfah-i-Multan
Gard-ŏ-garmá-o-gadá-o-Joistan.

The clayey dust of the Ravi river has been deposited here by process of alluvion. The heat is excessive owing to the lack of rain and sandy banks of the river-beds. The mendicants and the tombs have an inalienable connection ; where there is a collection of tombs, a colony of mendicants is sure to spring up. The last two, tombs and mendicants, form and have always formed the major part of the Mahomedan population of the city.

The city of Multan, however, is all around dotted over with trees, and looking from an altitude, there appears to be a uniform greenland. There is an abundance of vegetables. Mangoes, dates and pomegranates are the fruits that grow in abundance.

II. The City of Multan: Its Trade and Industries

The city floors are paved with bricks. The Town Hall is situated outside the Tahori Gate. The foul and stinking smell, that comes out from behind this fine building, speaks well of the honour of the Municipal Committee, for the dirt lies at their door, while their eyes are engaged on the main roads. The building possesses a clock-tower in the middle of the front. In the centre of the city there is the Chauk Bazar, to be fitly styled the ornament of the city. Here a great trade is carried on. Dry fruits find their inlet from Quetta and Karachi and are sold in great abundance. Sugar-candy in plates and pitures, and refined sugar in powder are manufactured from the English sugar (a standing reproach to the advocates of Swadeshi). Washing soap is also manufactured, cut in round tablets and cakes, sold at the rate of 3 seers and 3½ seers for a rupee respectively. Some 20 families carry on the manufacture of a rude sort of paper out of cotton-rags, rotten gunea bags, and waste paper. It is employed only for the purpose of packing the packets. The paper is sold at the rate of 28 to 30 quires a rupee. The glazed earthen wares of Multan, with their fine painting and artistic decorations are renowned all over the province. Silk industry is in a good condition. There are also a great many leather shops.

III. The City of Multan : Its People

In the south, there is a canal and the famous garden of Tahuga Khan. In this garden, there is situated a Public Library and Reading Room. The Library contains some two thousand chosen books almost all in English. The leading papers of the province are contributed here. On the bank of the canal, you might see some *Multanis* rubbing their body with fragrant oil, and bathing in the waters. Owing to this frequent use of oil and the white clay called *Multani* or *Gajani* the people are proverbially dirty. The people possess a suavity of speech and seem to be hospitable. The extreme heat seems to have had much to do with the aspirated pronunciation of the vocables. In vocabulary, too, the dialect differs much from the main Punjabi, though in its

essential characteristics it is almost the same. A person coming from outside the province finds it extremely difficult to follow the trend of thought, when a glib-tongued Multani might be holding forth or lavishing his eloquence. Their manner of speaking can hardly be acquired.

BHATINDA
18-9-09.

A FOURTH-YEAR STUDENT

BHUBANESWAR AND ITS WORLD-FAMED TEMPLE

It was with great difficulty that I could procure a seat for me in the Madras Mail which left the Howrah station at 4-49 p.m., on the 27th of Aswin 1314 B.S. (1907)

On the Rupnarayan Bridge:—The names of Damodar and Rupnarayan are known to the public. They are noted for their tremendous floods. These two rivers run parallel to each other. Now turn to the Rupnarayan. She becomes very extensive during rainy season. In the faint light of the night she looks like a stream of molten silver.

Precints of Orissa:—After a while I reached within the limits of Orissa. Passing the stations of Balasore, Bhadrak I saw a range of hills. The sight is very beautiful here at dusk. From these hills run the Mahanudi, Birupa, Brahmani, Baitarani. The Mahanudi is on the south of Orissa, the Brahmani, and Birupa in the middle, and the Baitarani is on the north. All these rivers flowing through many towns and villages fall into the Bay of Bengal. There are many rivulets here *e.g.* Burā, Khārsuā, Patiyā, Kimiriā, Genguti, Kelo, Chitartolā, Nun, Pāikā, Kātjur, Suruā, Large Devē, Little Devē, Kushbhadrā, Prāchē, Koyākhāi, Bhargavē and Dayā. All these are in Orissa and thus they supply the waters of the three chief rivers, *viz.*, the Mahanudi, Brahmani, and the Baitarani. On our departure from Cuttack for Bhubaneswar, the Madras mail passed by us in its full motion echoing the sky with the melodious cry of Bande-Mātaram. I soon reached Bhubaneswar which is 271 miles from Howrah.

Bhubaneswar is a place of pilgrimage to the Hindus. This sacred place is two and a half miles from the station. Pilgrims generally go there by means of carts but the staunch and devoted Hindus never go by carts or palanquins, but they go on foot. There is a class of men called Pandas or guides attached to the temples. Their profession is not to worship gods or goddesses but to extort money from the pilgrims as guides (सेवी) and to give them lodgings etc. The *pandas* as a rule are very bad, as in Gaya &c. But that is not the case at Bhubaneswar.

It was once a very magnificent city. The praise of the temple of Bhubaneswar is on everybody's lips. It is a matter of deep regret, however, that there is no connected history about this place. They say that some of the turbulent Mahomedan princes destroyed many valuable books and images of Hindu gods of ancient times. Kalapahar was one of them. The Mahomedan zealots burning with zealousy tried their best to demolish Hindu temples with their gods and goddesses and burnt down Hindu Shastric books.

For six centuries Bhubaneswar was the capital of the Kesari, or the Lion dynasty of Kings of Orissa from A. D. 500 to 1130. There is a sacred lake there called *Bindusaravara.* It is said that seven thousand shrines once clustered round this sacred lake of Bindusaravara. The construction of this lake is ascribed to the Lion dysty. All these shrines cluster round this lake, but at

considerable distances, say one is half a mile distant, another is one mile, and so on. Far off from this Saravara there are many temples covered with dense jungles. Those who have not seen those places may naturally think all these shrines are made of bricks. That is not the fact. All these are stone-temples; and these stones are piled together without mortar. These buildings are constructed without any beam or rafter (i.e. without any support). The artizans of Orissa exhibit every stage of Orissan art from mere piles of stones in the usual sugar-loaf shape to the exquisite designs and ungrudging toil of artists of the 11th and 12th centuries. These temples and shrines give striking evidence of the artistic skill of Orissan art. Fifteen centuries have elapsed but these shrines remain unchanged. My joy knew no bounds when I saw all these. My imagination cannot conceive how many millions of rupees must have been spent on the construction of these shrines. The modern engineers cannot make out how this may be done. The ancient engravers and sculptors and artisans of Orissa were famous for their architectural skill. The Kesari dynasty of Orissa were known for their patronage of science. They encouraged people devoted to learning. They honoured men of talent of the land without any distinction of caste by the grant of lands. It is for their encouragement that the artisans made so much progress and refinement in their art. The temple of Mukteswar is worthy of note in respect of fineness and beauty and its architectural skill.

The Great Temple of the place is known as Bhubaneswar and thus the place is named after it. It is commonly known as that of Lingaraj Mahadew, and with a multitude of smaller temples and shrines, stands within a large walled enclosure about five hundred feet square. It was constructed by the Lion Kings of Orissa and was built in the seventh century A. D. The Hindu visitors have to enter by the lion-gate. Mahomedans cannot enter the temple enclosure. Similarly also Europeans, &c. are excluded from admittance into the temple enclosure. This wall or enclosure was constructed by stone of one foot square. The height of the wall is 24 cubits, in some places 40 cubits owing to the undulating ground. I carefully measured this with my own hand. These stones are placed one upon another and no mortar is used.

There are two gates here for entrance into the inner yard. The northern gate is private, and the eastern gate is open to the public. Two lions are seated on both sides of the gate and their big eyes are glowing like red-hot iron. Seeing the architectural skill of the Hindus many Europeans have tried hard to enter into the gate but in vain. Even Lord Curzon once tried to obtain entry but his prayer was emphatically refused by the Executive Committee of the Temple. His Lordship took a bird's-eye view of the Great Temple from a raised platform made for the time being and returned with a mortified heart.

A large multitude—more than a hundred of temples and shrines is included in that walled enclosure, of which the Great Temple of Bhubaneswar is the largest. It is larger in height than the Ochterlony Monument of Calcutta. It is a great wonder how this extensive temple was built in ancient times merely by piles of stones in the usual sugar-loaf shape. The exquisite design and the ungrudging toil of Orissa artists of the seventh century naturally extort our admiration. After bathing we entered the extensive inner court on bare foot, leaving our umbrella at the gate. None are permitted to enter into that walled enclosure with his stick,

shoes, umbrella or anything like that. First of all we saw and touched (as is the rule with the Hindus) Ganadev (गणदेव) on the south-east corner. Then we saw a large pillar called *Arunstamva* (अरुणस्तम्भ). Before entering into the temple every visitor is bound to give half-an-anna towards the repair of the temple. A Chowkidar is always present at the gate of Lingaraj Mahadew to collect the sum. Why that sum is taken from every visitor, is explained in writing on a board in Uriya and Bengali and a box is placed immediately under it with a hole in it for the coin to pass. Then we entered the temple with high and low stairs. The broad coart-yard under the second part of the temple is seen. Then getting over a large number of steps we saw Lingaraj Mahadew. His Linga Murti is rested on an alter (वेदी) of many sides and his body is covered over with flowers, Billapattra, sandal, cloth and heap of copper coin and silver pieces, &c. The lower part of Mahadew cannot be seen. It is hidden under the floor. The upper part, on the contrary, is very extensive and the lower part is hidden in the ground; consequently the Lingaraj seems to be a grand stone block. But in reality it is not so. It is a *Linga Murti* and is very extensive, and it is therefore called *Lingaraj Mahadew* i.e. the king of all Linga Murtis. It is the grandest of all Linga Murtis so to say. I looked at the image very minutely and accurately thrice or four times. There is no window in the temple and consequently even in the day-time none can see without the help of a lamp. There is such a great display of rare architectural skill in the temple that one cannot but wonder. On the southern side of the temple we saw a very fine little temple. Then we entered into a temple where we saw Madanmohun, Basudew, Dolgovind, Durga, Radhakrishna. All are very charming to me and these gods and goddesses are ornamented with gems, pearls, gold and silver. We saw then the temple of Biswakarma, Shitala, Lakshmi and many other minor gods and goddesses. After that we saw a roofed-yard (नाटमन्दिर). We came to know on enquiry that the Brahmins are in the habit of eating their dinner and supper everyday there.

The Bhog or Prasad offered to Mahadew consists of many kinds of eatables, *e.g.*, cooked rice, vegetable curries, dals (pusle) and sweets. The Prasad is offered to the Deity thrice daily, viz. morning, noon and evening. It is so settled by the Trustees that nine rupees are paid to the priests daily for the Bhog purposes. This shows that the income is very scanty. Pilgrims and visitors do not cook their food here. The quantity of Bhog increases or decreases in proportion to the number of pilgrims who pay for them through the pandas or the pilgrim-agents or guides.

I saw the evening worship (आरति) of the god. It is very charming. The incantations (स्तोत्र) are so charming that the visitors stand stock-still at the time. The illumination in the temple at the time is very beautiful to look at. I request my reader, if possible, to go there and see the evening libations and worship of Mahadew. Just in front of the eastern gate there lies a magnificent ghat styled Devipatghat. It was erected by Rajah Lalāt Kissore and is named after him Lalāt Kissore's Devipatghat. It is surrounded by a very high enclosure. Its height is 18 stone blocks of 10 angulis each. Within this wall there stand 99 small Siva-temples. It has two ghats, one stands with a covered gate and the other without it on the south-east corner of the pond.

GANAPATI RAY, BENGALITOLA,
Benares City.

Question: How can Indian Students increase their **Love of Country?**
Answer: This can be done by,—
i. Increasing their knowledge of Indians and of Indian Civilisation, esp. Hindu and Islamic,
ii. Working together for something useful to their district, town or village,
iii. Supporting indigenous industries and enterprises, even at a sacrifice,
iv. Helping the cause of national education, at once scientific, technical and literary.

THE DAWN —AND— DAWN SOCIETY'S. MAGAZINE

एकरूपेण ह्यवस्थितो योऽर्थः स परमार्थः ।

That which is ever-permanent in one mode of Being is the TRUTH.—Sankara

OLD SERIES VOL. XIII, No. 4 | APRIL 1910 | NEW SERIES VOL. VI, No. 4

PART I: INDIANA

LITERARY WEALTH OF INDIA: VALUABLE CONTRIBUTION FROM A VIZAGAPATAM CORRESPONDENT

Elsewhere in this number we publish an article from the pen of a well-read scholar, Sj. Ranganathaswami, Secretary to the Arsha Library, Vizagapatam, and Member of the Asiatic Society of Bengal, who sends us, in connection with our recent articles on *India's Literary Wealth** where we gave some account of the Jaina MS. libraries existing in different parts of India, an interesting account of part of his work relating to his search for Jaina Prakrit MSS. It is to Jainism, as to Buddhism and other popular religious movements, that we are indebted for the development of some of the vernacular languages of India and their exaltation to the status of so many literary languages, fit vehicles for the expression of higher thought and culture. What Buddhism did for Pali, the vernacular dialect of Magadha, and the Mediæval *Bhakti* movements of the 16th century for the modern provincial vernaculars of India, that did Jainism for no less than four Indian vernaculars viz. Tamil, Telugu, Kanarese, and last, though not the least, an old Prakrita dialect known as Jaina Prakrit in order to distinguish it from other Prakrita dialects. Most of the sacred works of the Jainas, especially the earlier ones are written not in Sanskrit but in the popular Prakrit; for the founder of Jainism, Mahavira,—the Jina, or the conqueror, like Buddha, used the language of the people when teaching. Sanskrit began to be used much later, and, about the 9th and 10th centuries A. D. when there was a great revival of Jainism in Western India, the Jaina monks not only embodied their religious teachings in Sanskrit works, but also won distinction in the varied fields of secular scholarship which had hitherto been the special possession of the Buddhist and Brahman scholars. And "they have accomplished so much of importance," says Dr. Buhler, the renowned German scholar, "in grammar, in astronomy, as well as in some branches of

* Vide *April, May* and *June*, 1909 numbers *i. e.* pp. 63-71 ; 77-83 ; 93-100 of Vol. V of this Magazine.

letters, that they have won respect even from their enemies, and some of their works are still of importance to European Science."*

It was during the four centuries immediately preceding the Mussalman conquest of Hindusthan, which covered the rule of the Chalukya and Rashtrakuta princes in the Southern Maratha country and of the Chalukyas in Gujarat, that Jainism along with Hinduism began to supplant Buddhism as the dominant faith in Western India. It numbered, as it still does, the majority of its adherents among the great merchants and bankers of the cities, who endowed monasteries, built temples, dug tanks and established charities on a most munificent scale. Some of the most important kings of the dynasties mentioned above, were themselves devout followers of the Jina. The names of the Rashtrakuta prince, Amoghavarsa I, the great patron of Digambara Jainism in Southern Maharashtra, and of the Chalukya king Kumarapala of Gujarat, disciple of the celebrated Jaina *Acharya* Hemachandra, are two of the best known examples. Under the auspices of these royal patrons and in the *Upasrayas* or monasteries that sprung up in the great cities, numerous works on doctrine, ritual, grammar, logic, rhetoric, astronomy and other branches of learning, were composed in Prakrit and Sanskrit by successive generations of Jaina monks, and have been copied and preserved in the MS. libraries attached to these *upasrayas*.

It is in a search for these Prakrit works written by the Jaina monks, that the writer of the article referred to above has been engaged for some years past. An important branch of the Jaina scholarship is Grammar, and especially the grammar of the Prakrit dialect. In his search for a grammatical work entitled *Sabdachintamanivritti* (शब्दचिन्तामणिवृत्ति) by one Subhachandra, quotations from which are found in other extant grammars, the writer referred to that monumental work of reference by one of the profoundest of German scholars, Dr. Aufrecht's *Catalogus Catalogorum* which is a compendium of all the catalogues of Sanskrit and Prakrit MS. collections in the world, and also to Dr. Rajendra Lala Mitra's *Notices of Sanskrit Mss.*, both of whom identify the work with a MS. work in the Bengal Asiatic Society's collection entitled *Audaryachintamani* (औदार्यचिन्तामणि) by an author whose name is given by Dr. Rajendra Lala as Subhasagara. On actual examination of the MS., however, our contributor found it to be a different work altogether, the name of the author being Srutasagara, and not Subhasagara as given by Dr. Mitra. He has been able to fix the identity of this Srutasagara, as the author of several other well-known works and the disciple of a famous Digambara Acharya, Vidyanandin. The writer has thus not only corrected a mistake in that monumental book of reference, the *Catalogus* of Dr. Aufrecht, but in doing so, has added materially to our knowledge about the grammatical literature of the Jainas by bringing to light a hitherto unknown grammatical work, which proves to be much fuller than the extant ones of

* Vide *the Jainas*, by Dr. J. G. Buhler and J. Burgess, p. 22.

Hemachandra, Trivikrama and others, and by completing our knowledge about a versatile Jaina author, viz., Srutasagara. With this introductory note we invite our readers to a perusal of the valuable contribution sent by our distinguished correspondent, Sj. Ranganathaswami of Vizagapatam.

RABINDRA NARAYAN GHOSH, M.A.

SWADESHI IN THE MADRAS PRESIDENCY: FURTHER ACCOUNTS OF RECENT DEVELOPMENTS—PART III

(Continued from pp. 204-209, of Part I of December, 1909, Vol. V. of this journal)

I.—Some Remarkable Figures Showing the Growth of Swadeshi in the Madras Presidency

The future welfare of India is intimately bound up with the growth of the industrial Swadeshi in every part of this country. The question, it appears to us, is one of life and death to our people. It is gratifying to note that there has been an appreciable progress in this direction in almost every province of India. But from one point of view, the point of view which we are immediately going to make out,—to the Southern Presidency alone belongs the distinction, the unique distinction of leading in the van of the onward march. In no other part of India was the falling-off last year in the imports from Lancashire of textile fabrics and yarns, so large and so serious as in Madras. On the occasion of the last Deepawali sales (November, 1909) in Madras (corresponding to the Lucky-Day sales in Calcutta) both the Indian and Anglo-Indian journals of the Southern Presidency pointed out that the shrinkage was extraordinary. "Contrary to expectations," declared one Anglo-Indian journal, "the Deepawali demand has been disappointing this year (1909) in nearly all classes of piece-goods." This, however, does not represent the whole truth; for the import trade of the Southern Presidency in piece-goods suffered an enormous decrease, both in value and in quantity throughout the year 1909, and not merely on the occasion of the Deepawali, as the following figures will amply show. For the nine months, January-September, 1908, the value of the imports of British cotton-goods of all kinds into the Madras Presidency, amounted to £ 2,046,176; while for the same corresponding period in 1909 (*i. e.*, January-September, 1909) the value of the same imports came down to £ 894,139, which represents a shrinkage of nearly 56 per cent in value. If we look at the question from the point of view of quantity of textile fabrics imported during the first nine months (Jan.-Sept.) of the above two years, we notice a falling off of 42 per cent. This depression in Madras was not confined to one particular

kind of textile fabrics as was the case in the Bombay Presidency, but extended to all kinds of piece-goods (grey, bleached, printed and dyed), as the following figures representing the values of the imports in round numbers for the same two years will show :—*Grey*—from £ 1,161,000 (in 1908) to £ 493,000 (in 1909); *Bleached*—from £352,000 to £149,000; *Printed*—from £ 390,000 to £ 197,000; and *Dyed*—from £ 144,000 to £ 56,000. Further, we have to note that the depression in Madras affected not merely the imports of British *piece-goods* but also import of British *yarns*; for we find that during the nine months, January to September 1909, the value of the imports of Lancashire *yarn* into Madras came down to less than a half of the value of the imports during the corresponding period of the previous year, the exact figures being £ 651,395 for 1908, and £ 273,247 for 1909; which represents a shrinkage of about 57 per cent. It will be seen from the foregoing figures that long before the Deepawali sales came on, Lancashire had been experiencing the hardship caused by the depressed condition of the piece-goods and yarn import-trade of the Southern Presidency; and in no other part of India was the depression so large and so serious; for we have to note that in 1909 Bombay imported far larger quantities of Lancashire yarn than she did in the year previous.

There is just one more point to be specially noted in connection with the above, which shows a gratifying growth of Swadeshi in one notable direction. It will be seen that the decrease in *quantity* of imported British piece-goods, although sufficiently striking, being so high as 42 per cent, was still less than the reduction in the *value* of those imports, the reduction in the value amounting to 5§ per cent, as above indicated. This clearly points to the fact that the imports from Lancashire into the Southern Presidency, consisted more largely in 1909 of the coarser fabrics than they did in the year previous; in other words, foreign manufacturers are no longer exporting into the Presidency their finer goods to the extent as they did before, and they are now sending out stuff which being coarser would at first sight be indistinguishable from Swadeshi piece-goods.

II. Bengali Enterprise in Madras: Two Button and Comb Factories

It would arouse the curiosity of many to learn that the wave of Bengali enterprise in the pursuit of industrial Swadeshi has extended beyond the limits of United Bengal and touched the shores of distant Madras. It is a remarkable circumstance that in the very early days of the Swadeshi movement, in the month of May, 1906, a Bengali, by name Rajnarain Bose, of the rural town of Halishahr in the district of

24-Pergunnas in Bengal went to Madras and established there a small Button Factory; and in November following, a Comb Factory on a similar scale was established. The combined factories known as the *Button and Comb Factory* of Messrs. Bose & Sons at present occupies premises No. 145, Tiruvattur High Road, Tondiapeth, Madras. At present sixty hands in all are engaged in the Factory. Buttons, combs, etc. are manufactured from bones and horns, partly with the help of machines and partly by hand. It is a noteworthy circumstance and speaks a good deal for the manufacturing ability of Messrs. Bose that their machines for the cutting of the teeth of combs are their own invention and are manufactured at the Factory itself. We have been presented with a number of samples of manufactured articles and we have nothing but praise for them. The presents consist of two sets of shirt-buttons, two sets of sleeve-links of different designs, one long comb, two tooth-combs of different sorts, one tail comb, one snuff box and one vermilion *Kouta* (receptacle) and they all appear to us to be first-class articles. Not only may they well be compared with imported foreign articles of a similar description, but some of them appeared even to be superior to the latter. We are particularly struck by the high polish of one of the two sets of buttons and one of the tooth-combs, which might, in our opinion, be freely placed in our markets without much fear of competition. The vermilion *Kauta* is inlaid with metal threads and is of decent design. We are glad that the high quality of the articles is not the only recommendation, but they are cheap as well. The demand for them is growing and Messrs. Bose will have to extend their present arrangements to meet the growing demand. We note also that not only Indian but also Anglo-Indian opinion in Madras have recognised the worth of these Swadeshi articles. The *Madras Mail*, the leading Anglo-Indian paper of Madras, speaks highly of Messrs. Bose's buttons, and that well-known journal, the *Indian Patriot* of Madras, published in English, and that highly popular and respected vernacular paper the *Swadesh-Mittran* of the same Presidency are equally enthusiastic. We congratulate Mr. Bose, who is a retired Railway offical, on his having chalked out a highly useful career for himself, which is also so fruitful of good to his country.

Our readers will be glad to know that besides Messrs. Bose's firm, Madras boasts of another Bengali button-manufacturing firm, which goes by the name of Messrs. Ghose Mazumdar & Co., whose Factory was established in 1905 or some time previous to the establishment of Messrs. Bose's firm, and which, we understand, is conducted along similar lines. We are not at present in possession of all the facts

connected with this factory, but we are informed that about 50 hands are now being engaged in it and the articles manufactured are of good quality. Let us hope that the success of the above two Swadeshi firms of button-manufacturers will be of such a kind as to be equal to the growing popular demand in the Southern Presidency for high-class combs and buttons, etc.

III. Striking Development of Swadeshi in Madras: Or the Madras Glass Works, Ld.

In Part I of this article (p. 194, November, 1909, Vol. V of this magazine) we barely referred to the fact that a Syndicate had been formed in the city of Madras with a capital of over two lakhs of rupees to start a Glass Factory under very competent management and that the Factory was under construction. It is now our pleasant duty to inform the public that the Madras Glass Works, Ld. is now an accomplished fact, and that the work of manufacture is rapidly progressing. The enthusiasm in favour of the project has been so great that at an extraordinary General Meeting of the Company held on February 25th, 1910, it was resolved to raise the authorised capital from two to four lakhs and to issue out of this additional two lakhs only one lakh worth of shares, reserving the remaining lakh for a further issue. The Board of Directors are composed of four gentlemen, by name Haji Ismail Sait, Mr. Leishman, V. Masillamony Pillai, M.A., B.L., and Mr. J. R. Unger; while Messers. Ramsay & Co. of Madras are on the Agency of the Company. The Company has already begun operations. The official Director of Industries in the Madras Presidency recognises the special importance of this Swadeshi undertaking and it is on his recommendation that the Government has sanctioned the free grant to the Company of half the fuel to be used in the furnaces of the Madras Glass Works during the first two years of its working, the maximum grant for the whole period of two years coming up to 7,200 tons.* It was pointed out to the Government that the commercial success of the industry depended entirely on the possibility of training indigenous labour to work it, and it was therefore that the industry could not be considered to have passed the experimental stage until a locally trained staff had been created. It was also pointed out that in order to train up such labour the Company had imported a European expert and European glass-makers and that the heavy expenditure consequent on the maintenance of a highly paid staff constituted a

* The firewood will be supplied from the Seshachellam extension, a Reserved Forest (Block B), near Kodur in the Cuddapah district, and should be felled and transported by or at the expense of the Company subject to such supervision as the Forest Department may consider necessary.

heavy drain on its resources and tended to diminish considerably the commercial success. The Factory building of the Company, which was constructed under the Superintendence of a German expert, Mr. Meier, whose services have been secured by the Company, is situated on the Marina to the South-West of the old Ice House in Madras. The Factory is fitted up with up-to-date machinery required for the manufacture of glass tiles and soda-water bottles. While, we understand, new machines for the manufacture of pressed glass-wares, such as rice-bowls etc., are to be ordered out from Europe immediately. The Company proposes to manufacture also prismatic sky-light plates, India rubber tapping cups, telegraphic and medical stores, chimneys, tumblers and other staple articles. The raw materials required for the manufacture of glass are all indigenous except in the case of soda which is at present being indented from Europe. The sand, which is procured from the neighbourhood of Eravanur is, of the first quality containing 99 per cent. of silicate. Sea-shells which are a special natural wealth of the Presidency are substituted for chalk, which is also one of the ingredients for glass-making.

We have to note in this connection that a number of young Indians of different classes and creeds have been learning the manufacture of glass under the guidance of the German Blower, Mr. Fredricks whose services have been engaged by the Company. Among them is a graduate, Mr. Venugopala Chariar, B. A., and several matriculates, working side by side with ordinary coolies. Mr. Venugopala Chariar is an active worker and superintends the whole business in connection with the tile-manufacturing department of the Factory. It is gratifying to note that all the young Indian apprentices have made appreciable progress in course of this short period. And it is believed that, while in Europe a glass-maker before he becomes efficient has to learn fully three years, in the Glass-Works here with a better class of people it should not be difficult to train them in a much shorter time.

Process of Glass-Manufacture

Glass articles are now made by the following process in the Factory. Sand is first washed and dried on a platform and then sifted. It then looks perfectly white and is, we are informed, equal to if not better than the best sand procurable in Europe. Shells also are washed and dried in like manner. They are then put into a Ball Mill, which grinds them in a very short time and requires very little attendance. There is also an arrangement in the Ball Mill room to crush the soda into very fine powder. Then follows the mixing process. The sifted sand and powdered soda and shells

are then taken in due proportions and put into the mixing machine, which mixes them mechanically together. Every night some necessary quantity of this mixture is taken and put into the furnace, which is reported to be very ingeniously constructed. The melting is done during the night, while at five in the morning the workmen go to work. It is proposed, however, to melt during the day and and to work at night during the summer. All goods are manufactured from the liquid substance in the furnace. They are then put into annealing hovens of which there are some twelve, and are kept in this state for six days after which they are taken out. Glass, which is unannealed is too brittle for use; and a soda-water bottle not annealed would break at a pressure of 50 lbs per square inch, while it is required in India to stand the ordinary pressure of 150 lbs. per square inch. There is a testing machine in the Factory to test the resisting power of the bottles. It was found on experiment in the Factory performed before His Excellency the Governnor of Madras Presidency and the Lord Bishop Southwark who lately paid a visit to the Glass-Works, that English bottles made by Messrs. William Bernard and Sons of London burst at a pressure of 380 lbs. per square inch, whereas bottles of the same size and same weight manufactured in this Factory stood a pressure of 460 lbs. per square inch.

IV. Co-operative Banking Business in the Southern Presidency: A Step in Advance

In our last article on this subject (pp. 204-6 of Vol. V of this journal) we noticed that a very large class of banks, some one hundred and one in number, of which 24 are urban and 77 rural banks, represented the net result of the great Co-operative Bank movement in the Southern Presidency during the twelve months, July 1907 to June 1908, showing an increase in the twelve months previous of 38 new banks. There has been further growth in the same direction during the last year. The importance of this special Banking Movement is admitted, for these banks, as we have seen, in the first place, are organised and maintained by the people themselves, and teach them in a manner which nothing else can do, or do so well, the lessons of co-operation and self-government in matters affecting so nearly their primary economic interests. And the beginning of reform introduced by the agencies of these Co-operative Banks has shown itself in considerable reduction in the interest charged by the greedy money-lenders to the helpless village agriculturists. And these banks have further helped in the formation of small weaving and other factories, and industrial undertakings generally, so that to quote the language of Mr. A. C. Chatterjee

B. A., I. C. S., President of the second U. P. Industrial Conference (1908), "everywhere is noticeable the dawn of genuine industrial enterprise in the Madras Presidency led by the educated professional classes permeated with the true industrial spirit." One of the most remarkable developments in this direction has been the inauguration of District Conferences in that Presidency of delegates from the different rural Banks located in the districts. Although primarily organised by the authorities of the Co-operative Banks, these Conferences have also received the cordial and valued support and co-operation of leading men of the districts. This further movement in the shape of annual District Conferences of the representatives of the Co-operative Banks in the Madras Presidency, we consider to be a distinct and notable step in advance, fraught with endless possibilities of good. One of the latest of such Conferences, the Second District Conference of Chingleput Co-operators was held at Conjeveram on the 22nd January last (1910). The Conference was organised through the efforts of the Co-operative Societies in the destrict, some 44 of which sent in 70 delegates to it. Besides, some prominent men of the Presidency took part in the proceedings, including Sir V. C. Desikachari, Kt., L. D., organiser of of the Madras Central Bank, Swamikannu Pillai, M. A., of the Revenue Board, Rai Bahadur M. Audinarayana Ayar, K. S. Kothandarama Ayer, B. A., B. L, District Munsif, R. Rama Chandra Rao, B. A. Registrar, Mr. K. Vigiaraghava Chari, M. A., and C. P. Ramasami Ayer, Vakil, High Court. Another important feature of the Conference is that the proceedings on both the days the Conference met were in Tamil from start to finish, a fact which must not be overlooked when the question of popularity of the cause is considered. The business transacted by the Conference was also of much practical significance. Progress reports of the Co-operative Credit Societies were read by the respective delegates. Every delegate complained that the restriction imposed by the Government on public servants drawing a salary of Rs 35 and upwards against depositing in or becoming members of Co-operative Credit Societies, and a resolution was unanimously adopted praying that the Government might relax the rule aforesaid. A number of gentlemen spoke on the occasion, their speeches being marked by considerable practical good sense and ability. In the opinion of the President of the Reception Committee, Mr. M. E. Srirangachariar, B. A., B. L., Vakil of the Madras High Court, the Conference was "a necessary sequel to the wonderful development of the Co-operative Credit movement" in this district.

V. The Striking Success of the Indian Bank, Ld., Madras

Besides a large number of Co-operative Banks, rural and urban, to which we have just referred, the Southern Presidency boasts of no less

than four important Banks which do not come under the above description. Of these, three are situated in the mofussil and one in the capital of tne Southern Presidency. In our last (pp. 206-9 of Vol. V.) we referred in detail to these Banks. There is one point, however, in connection with the last Bank at Madras (known as the Indian Bank, Madras) which, to our mind, deserves special mention as indicative of the whole-hearted co-operation between the people of the Southern Presidency and the promoters of the Bank. In our opinion, not the dividend which the Bank has declared as payable to the shareholders for the last year, although that is respectable enough (being no less than 5 per cent per annum), but the cordial co-operation between the people and the Bank to which we have just referred, as shown in the huge deposits that have been paid into the Bank that constitutes the striking success of this banking enterprise. These people's deposits in the Indian Bank of Madras last year came up to the large total of close upon thirteen lakhs and a half. No doubt this is a small sum for a bank with a paid up capital of ten lakhs of rupees, but the progressive increase of these deposits, considering the short time the bank has been at work (it was in March, 1907, that this Bank was registered), furnishes gratifying testimony to the growing confidence of the public in its management. This is all the more remarkable as the Bank was started at a time when the failure of a great commercial House in Madras, namely the failure of Messrs. Arbuthnot & Co. in which the whole of the Southern Presidency were interested as investors, had shaken to the foundations public confidence in banking concerns. This was no doubt a serious handicap to the infant institution ; but the sound and cautious work of the Directors soon gained the confidence of the public, with the result that the gross income of the Bank for the four successive half-years, beginning 30th of June 1907 rose to higher and higher figures,—*e. g.*, from about thirteen thousand (for the first half-year) to about forty-nine thousand (for the second half-year) ; to about fifty-two thousand (for the third half-year) ; to rupees seventy-two thousand (for the fourth half-year). Thus, the Indian Bank notwithstanding great and apparently insuperable difficulties at the very threshold of its career has been able to turn out fairly good and satisfactory work ; and it was announced in the Directors' Report (dated 18th January, 1910 for the year ending 31st December, 1910) at the Third Ordinary General Meeting of the Shareholders of the Bank held at its Head Office, "Ramakoti," Georgetown, Madras, on the 26th of February, 1910, that the *nett* profits for the half-year ending 31st December, 1909, came up to the high total of

rupees half a lakh; notwithstanding the general trade depression of the year on account of which the Bank's resources did not find as full an employment as could be wished. It is noteworthy, as mentioned by the Chairman of the Meeting, that some of the Native Indian States in other parts of India have been giving some help to the infant institution.

We conclude by drawing the reader's attention to the vote of thanks recorded by the Meeting, to the Hon'ble Mr. Justice V. Krishnaswami Iyer for his valuable services during his previous connection with the Bank. Mr. Krishnaswami Iyer of the Madras High Court worked hard at the beginning of this Bank's career to usher it into existence. In the opinion of the Chairman of the above Meeting of Shareholders, "but for his great exertions the Bank would not have been called into existence, nor would it have attained the success it has now achieved." The vote of thanks ran in these words: "That this Annual General Meeting of the Indian Bank, Ld., places on record the deep sense of gratitude of the Shareholders and the public both in the City and in the Presidency, for the splendid and invaluable services rendered by the Hon'ble Mr. Justice V. Krishnaswami Iyer in establishing the Bank and promoting its interests and usefulness."

We heartily congratulate all engaged in the work of the Bank on the results and the excellent progress the Bank has steadily been making.

SWADESHI INDIA OR INDIA WITHOUT CHRISTIAN INFLUENCES: AN EXPOSITION AND A DEFENCE—NINTH PART

Continued from pp. 44-46 of the last preceding number (March, 1910)

SECTION TWENTY-SIXTH

In studying the subject of Swadeshi India, two facts have come out in the course of our discussion: *Firstly*, that certain countries like Ceylon, Java, Cambodia, etc., which are outside the geographical limits of India, must be studied and regarded as integral parts of India by reason of their thorough Indianisation. And, therefore, *secondly*, when we proceed to enquire into their public institutions which are of a benevolent, charitable or philanthropic character,—institutions originating exclusively under Indian influences as distinguished from foreign Christian influences,—it is clear that the memorials preserved of them in those outside countries, in words, in stone or on canvas, must be regarded as Indian Swadeshi institutions, as evidencing and representing the overflowing spiritual life of India from which they drew their inspiration. All this appears to be so obvious that we might have spared ourselves the re-statement of this double fact. In the case of

Ceylon, in particular, there are ample evidences of the existence of public hospitals from times long anterior to the birth of Christianity—from, in fact, the 4th or 3rd century B. C., so as to exclude altogether the possibility of foreign Christian influences. And these Swadeshi Indian or Sinhalese institutions, in whichever way they are put, (*Indian* institutions,—as owing their origin exclusively to Indian influences ; and *Sinhalese* institutions also,—as situated within the geographical limits of Ceylon and also as being instituted by Sinhalese kings and peoples)—these Swadeshi Indian and Sinhalese benevolent institutions can, therefore, be best understood and appreciated in the light of the environment created by forces from India,—forces that gave them birth and to which also they owed their continuance. Now, these Indian forces were undoubtedly and specially, as pointed out and suggested in the last preceding or the Eighth Part of this series of articles,—religious in character. The transformation of Sinhalese life along Indian ways was undoubtedly and specially the product of religious forces brought down from India and strengthened by constant contact with her. And lastly, these religious forces at work in the island of Ceylon, which would decisively explain, as we shall show, the presence of hospitals and dispensaries throughout that island for a space of sixteen centuries and more,—these forces, principally, were the offspring of that mighty indigenous religion of India, the religion of Buddha, which exercised dominion over peoples and princes within and outside the limits of India for a long, long time, and which still holds sway over a very large part of the Asiatic continent. The process of transformation under Buddhist influences, which Ceylon underwent in the Asokan times and which continued down through the succeeding centuries, clearly explains Sinhalese life in many of her phases,—her arts, language, and literature and institutions of public utility and benevolence,—thus giving the lie to the doctrine ignorantly believed in and circulated by many well-meaning exponents of the Christian faith that neither in Hinduism, nor in Buddhism, nor in Mahomedanism, is there to be found the secret of life ; for, from the Christian standpoint, to which we have so often referred in the course of this series of articles,* these pagan religions, as they are called, are "destitute of all those fruits of Christianity which we often term charitable, philanthropic, benevolent." It is to us, modern educated Indians, upon whom the impress of foreign influences, and Western Christian influences in particular, lies so heavily—it is to us, under such circumstances of domination, almost inconceivable that the principles of the Buddhistic faith were fruitful of such mighty

* *Vide*, pp. 109-110 and pp. 125-127 of Vol. V of this magazine.

results in the mainland of India and all the other countries that submitted to her spiritualising sway,—fruitful of results in every department of the people's activities, in their arts, language, literature and also public institutions of utility and benevolence. And in the case of Ceylon, where the sway of Buddhism has continued almost unbroken down to our own days, we have incontestable evidence of Buddhism ruling and guiding and directing philanthropic activities of the rulers of the land even so late as the last half of the 18th century A.D. Thus, we read in the National Chronicle of Ceylon, the Mahawanso (Chapter XCLX)* that the King of Kandy, Kirti Sri Raja Sinha (कीर्त्ति श्रीराजसिंह), who reigned from 1747 to 1780, "meditated on the Noble Law (of Buddha) and steadily practised the four forms of kingly virtues, *viz.*, giving of gifts, speaking kind words, seeking the good of others, and regarding their fellow creatures as they do themselves;" while the princes, his brothers, "sought to do good in divers ways and conducted themselves according to the king's wishes, and *made themselves one with the religion and the people.*" While devoted to the welfare of the people, this King was also devoted to the bodily welfare of the Buddhist priests in the island and made ample provision for their medical treatment. The writer in the *Mahawanso* (Chap. XCIX, p. 356) after making certain prefatory statements declares that the King made provision for the treatment of the bodily diseases of the priests, appointed physicians, spent lavishly out of the royal treasury on the purchase of medicines; and he concludes by making the following noteworthy observations:— "Now, Buddhism hath declared that of all temporal blessings, the blessings of health is the best and the highest, and this blessing did the King confer on them. In short, *he maintained the religion of the supreme Buddha in perfect splendour.*" We read also in the same chapter (p. 356), with reference to the motives of the King in undertaking the above work of charity:—"In this world there are two kinds of diseases to which novitiates and priests are liable, namely, those of the body and those of the mind. Of these, for the cure of the diseases of the mind Buddha, the greatest of men, has provided the *Vinaya* rules and the

* The *Mahawanso* keeps up a continuous record of Sinhalese history extending from the invasion of the island by Vijaya from Bengal in the 5th century B. C., down to the British occupation of the island in 1815 A. D. Scholars are agreed that the Chronicle was begun to be composed in the reign of the Sinhalese King, Dhatusena, in the 5th century A.D. "The Mahawanso is originally based on the historical materials contained in the Sinhalese *Attha Katthas*, no longer extant, and on legends and traditions among the people." These covered the period—5th century B. C. to 5th century A. D. The narrative was carried on under subsequent sovereigns down to the end of the 18th century,—a final supplement bringing the record up to the British occupation of Kandy in 1815 A.D.—*Vide*, Tennent's *Ceylon* vol. I, pp. 315-16; Dr. Coomaraswamy's *Mediæval Sinhalese Art*, p. 7; Vincent A. Smith's *Early History of India*, 2nd. edition, p. 9.

Suttanta discourses. But the priests, after that they are instructed in the *Vinaya* and *Suttanta* remedies that are effectual in destroying lust and diseases of the mind, are liable to be afflicted with bodily diseases, by reason of which it is hard for them to practise the doctrines and precepts of religion. Therefore, the lord of the land made provision for the treatment of their bodily diseases."

Thus, works of benevolence were in Ceylon, as in India, religious in origin ; and further, the influence of the religion of Buddhism in Ceylon, as in India, inevitably led to the institution of works of philanthropy and benevolence, both by the people and the rulers. And speaking of Sinhalese hospitals and dispensaries, in particular, we shall have occasion to bring forward evidences of the most unimpeachable kind to show that from the 3rd century B. C. down to the 13th A. D., those institutions owed their origin to the same religious impulses.

SECTION TWENTY-SEVENTH

(A)

The influence of the Buddhist religion as a factor in the development of Sinhalese national life cannot be ignored. Buddhism brought in the seeds of life into the polity of the Sinhalese people. From the days of Asoka in the 3rd. century B. C., when Buddhism was introduced into Ceylon, down to the 12th and 13th centuries A. D., it has been a religious as well as a social factor in the island, of great and inspiring energy, directing the lives of the princes and peoples to acts of great and unselfish benevolence. And reaching downwards to the end of the 18th century, it was, as we have seen, a force to be reckoned with. Although the religious enthusiasm has waned considerably in these modern days of Christian and European influence in the island, it is still able to keep its head above the surging waters. No study of the Sinhalese public institutions like hospitals and dispensaries is, therefore, worth the name unless it is made clear and established once for all that they were indissoluble parts of an organised religious movement embracing the manifold activities of the people. Buddhism proved itself distinctly powerful for social good in Ceylon for the space of sixteen hundred years and more beginning with the 3rd century B. C., and it still maintains itself in the island in the presence of newer forces, the result of modern conditions brought about by contact with the West. In that standard text-book on Indian Buddhism by the well-known German scholar, H. Kern,—*The Manual of Indian Buddhism* forming part of the *Encyclopædia of Indo-Aryan Research* published in Germany, we read :—" All agree that Buddhism was introduced into Ceylon in the days of Asoka. This fact we consider to be historical. * * In the three centuries which elapsed between the death of Asoka and the reign of Kanishka, Buddhism was steadily on the increase in the North. It extended its conquest beyond the limits of India so far as Bactria

and China, *whilst in Ceylon it acquired the supremacy which it has retained up to this day amongst the Sinhalese population.*" (*Ibid*, pp. 117, 118). Again, speaking with reference to Indian influence on Sinhalese ecclesiastical history, the same authority makes the following observations :—"*Up to our days Buddhism has maintained itself against the encroachment of Saivism, Islam and Christianity.* The clergy has lost much of its influence, but the Law of Buddha is still held high by the aristocracy and the people of old Sinhalese extraction, though the popular form of religion is extremely like Hinduism. (*Ibid*, p. 132). And Mr. Vincent A. Smith in his *Early History of India* (2nd. edn., p. 177) while pointing out that "Asoka's openly avowed preference for Buddhism and his active propaganda established it as the dominant religion in India and in Ceylon" goes on to say that "*it still retains that position in the Southern Island*" (Ceylon). And lastly, in that most recent work by Dr. R. S. Copleston, who held office in Ceylon as Bishop,—his *Buddhism Past and Present, in Magadha, and Ceylon* (Longmans, 1908), we find similar references to Buddhism—to Buddhism of the old type and Buddhism in its present revived aspect. Thus, we read :—"There are two Buddhisms now in Ceylon : The residuum of the old Buddhism of the past centuries, as it lingers in out-of-the-way places, and as it has shaped the habits and ways of thought of those who are not under European influence ; and a new revival much more self-conscious and artificial, which aims indeed only at reviving what Buddhism always professed to be, but which has been influenced, in its estimate of that profession very largely by Europeans." The Bishop then goes on to describe the great revival of Buddhism, which undoubtedly has taken place in Ceylon during the last twenty years. Speaking of Buddhist religious festivals of the present day among the peoples of the island, the Bishop declares :—"One may see along the roads of the Southern Province twenty monks together, proceeding with some dignity, with very handsome fans and new silk umbrellas, with bowels neatly covered with yellow cloth, and carried by boys well-dressed in white, to the place of entertainment. And for miles one may meet companies of gaily-dressed people, women especially, but by no means exclusively, streaming along, cheerful and well-behaved, towards shrines which a few years ago attracted not a tenth of the number. Near such a shrine itself may be seen a hundred or more women, all in white, each carrying in her uplifted hand a piece of the fragrant areca flower, shouting 'Sadhu' from time to time as they marched along, and at any rate enjoying the exhilarating sense of procession."

(B)

The strength of the Buddhist religion in Ceylon, as in India, was seen not only on the purely religious side,—the side represented by ideas and doctrines relating to man's present and future and his modes of worship ; but also in the direction given to national activities and the development of a unique and powerful civilisation as an expression

of the national life. So that from this point of view, a study of the Sinhalese national and public institutions would become possible only in the light of the religious atmosphere surrounding them on every side. And the problem of the advancement of religion and of the welfare of the people would no longer appear in this view as two problems, but as *one*, being the counterparts of each other. Accordingly, we discover a marvellous change coming over the Sinhalese people as the result of forces set in motion by the introduction and subsequent development of the Buddhist faith in the island. Mr. Edward Upham, M. R. A. S., F. S. A., a recognised authority, in Vol. I of the *Sacred and Historical Works of Ceylon*, edited by him (1833), makes certain pregnant observations on the subject which we reproduce below. Says he :—"There is another point we can dwell on with pleasure, namely, the rapid and remarkable progress of the Sinhalese in every branch of national improvement, *which seem to have followed the benign influence of Buddhism*, as compared with the state in which it found them. It may, indeed, be said that though Buddhism has long ceased to exhibt characters which could vie with the mortifications and renunciations so common among the ascetic votaries of Brahmanism, its doctrines have been applied to far greater advantage *by recommending active benevolence and the practice of the useful arts*, specially agriculture ; and its annals dwell with every expression of applause on the conduct of those sovereigns who, by the formation of tanks or otherwise facilitating the labours of the people gave evidence of their wish to become the benefactors of the country." (Vide *Upham's Introduction, pp. xxxii, xxxvi)*. The same point is also brought out with equal distinctness by another recognised authority, Sir Emerson Tennent, whose *History of Ceylon* is a standard work on the subject. In Vol I of his *History* we read :—" Before the arrival of Wijay " (विजय), who invaded Ceylon from Bengal in the 5th century B. C., "agriculture was unknown in Ceylon. It was to the Hindu kings who succeeded Wijay that Ceylon was indebted for the earliest knowledge of agriculture, for the construction of reservoirs and the practice of irrigation for the cultivation of rice. The first tank in Ceylon was formed by the successor of Wijay, and their subsequent extension to an almost incredible number is ascribable to the influences of the Buddhist religion, which abhorring the destruction of animal life, taught its multitudinous votaries to subsist exclusively upon vegetable food. Hence, the planting of gardens, the diffusion of fruit trees and leguminous vegetables, the sowing of dry grain, the formation of reservoirs and canals, and the reclamation of lands in situations favourable for irrigation." (*Ibid;* pp. 429, 430).

It thus appears that the religious movement in Ceylon, as in India, was the one supreme factor of the national life, that can properly explain the existence of charitable and philanthropic institutions like hospitals and dispensaries throughout the island for a period extending over sixteen centuries, from the days of Asoka and Devanampiya Tissa (the first king of Ceylon who became a convert to the Buddhist faith) to the times of Parakrama Bahu, a powerful and charitably-disposed Sinhalese monarch of the 12th century, A.D. And the study of Sinhalese hospitals and dispensaries as a part of the study of Swadeshi India *untouched by Christian influences* is, therefore, only possible in the light of the forces set in motion in the island by the strength of a religion introduced from India and developed by constant intercourse with her.

PART II: TOPICS FOR DISCUSSION

THE FOUNDATIONS OF NATIONAL RECONSTRUCTION : A REPRESENTATIVE OPINION

We are in hearty agreement with the following opinions of a representative Indian Journal, the *Bengalee* newspaper of Calcutta, on the subject of *Indian National Reconstruction.* The extracts are taken from a leading article, " Basis of National Reconstruction," appearing in its issue of the 24th March, 1910.

" There is a painful want, it has to be admitted with regret, a want that is beginning now to be keenly felt, of precise and accurate information about the past achievements of our race. Yet Nationalism uninspired and unilluminated by an adequate appreciation of the nation's history and culture, of what and how much its members have done and have realised in the domains of Thought and Art, is somewhat of a contradiction in terms. The New India that rose before the Europeanised vision of the enthusiasts of the earlier generations—an India completely purged altogether of her old faiths and institutions, ideals and aspirations and delighting in practices and systems and disciplines imported brand-new from the West, is now no more. Closer acquaintance with Europe, a deeper insight into her thought and history, backed up by the experience acquired in their own country, has taught Indians to look upon their past with reverence, as pre-conditioning and outlining their work in the present, as containing the revelation in which they must discover the promise of the future. The idea of a nation as an organic unity in space *as well as in time*, in reference to its past, present and future, is now an established faith amongst us. Thus far we may be said to have progressed from the position of our predecessors. But that lays upon us the sacred obligation to redeem our past from the present condition of vagueness and obscurity, to know it with certainty, *to equip ourselves with clear, precise and ample information about our ancient civilisation and culture before we think of building upon it the programme of our future.* How have we discharged this obligation ?"

II

" We would not be guilty of ignoring the marked success Indian Nationalism has already achieved in some matters of vital significance. The renaissance of Indian Art in the hands of the gifted Bengalee young men who are making the old and the true Indian idea of beauty once more a living reality and inspiration to their countrymen is full of infinite promise. Dr. P. C. Ray's books on Hindu Chemistry are a luminous re-presentation of the knowledge of our ancestors in the terms that are demanded by the spirit of our times. And the brilliant chapter added by Principal Brajendra Nath Seal constituting, as it does, an encyclopaedia in miniature on Indian Thought is a most inspiring

earnest of what the writer could tell us in detail in the language of modern thought, (if he would only consecrate himself to the high and serious mission), of India's rank and worth as a contributory to the moral, intellectual and religious progress of the human race."

III

"A strong undercurrent of a desire for a correct knowledge of the past had been perceptible for some time back in the nation's thought, and seemed to find its visible expression and embodiment in the foundation of the National Council of Education. But up to the present moment, this institution seems to have done little in the direction we have indicated, if we may be allowed to say so without offence, in fulfilment of the ardent hopes that it raised at the time it was founded. It strikes us that the important thing for the Council to keep in view is not merely the instruction of a number of Indian youths, but the bringing together and the co-operation of a number of men who are fitted by their ability, perception and inclination to re-state scientifically the culture of our forefathers. There are such men in the country, none too many of course, and we think the National Council would do its highest duty to the Nation ; and deserve well of it,—surely the finest aspiration that could prompt and guide an institution,—by securing the services of these men with a view to making them and enabling them to dedicate the whole of their time and effort to the work of which we have spoken."

EDITORIAL COMMENT ON THE ABOVE

We are in hearty agreement with most of the ideas contained in the three foregoing extracts. We have been carrying out in our own humble way and according to the limits of our present resources the programme of work laid down above with such clearness of expression. We have only recently been able to secure the co-oparation of a few workers among whom are men of high intellectual and academic attainments, whose mission in life apparently is to carry out the programme of work to which the *Bengalee* draws our prominent attention. A few,—a small number are at present exclusively devoted to the work and they are helped by a small number of undergraduates, who are attached to them as apprentices and who like their masters are exclusively devoted to this literary mission of research-work in the department of Indian civilisation and culture. *But the point which we are anxious to bring out and make clear* is that men whose mission in life is of the kind we have referred to would on no account like to place themselves under the control of an outside agency, call it by what name you will, an Executive Committee, a Council, a Board of Governors, or of Directors to whom they would stand in the relation of an employee to an employer. That is the very crux of the whole question. A body of talented and devoted investigators or research-workers

would, no doubt, willingly own allegiance to their own *gurus i. e.*, men who by their achievements in the special departments of their work have established their claims to be recognised as masters, men like Sj. Rabindra Nath Tagore, Dr. J. C. Bose, M.A., D. SC., Dr. P. C. Ray, D. SC., Ph. D., Dr. B. N. Seal, M.A., Ph. D. for instance. But they would on no account like to "play second fiddle," to use a vulgar but expressive phrase, to a controlling agency composed only of lay-men, however high their social position,—they would on no account accept a position of subordination to an Executive Committee or Governing Council composed, for instance, of successful professional men, doctors, engineers, merchants, solicitors, barristers, pleaders, managers of estates, or on the other hand, ex-magistrates, ex-judges, or other retired officials or retired professional men,—men, in fact, whose supreme qualification in life, to assume control over such men would apparently be not that they are or have been investigators themselves, but that they have been highly successful in their several professions. The National Council of Education, therefore, has little chance of securing the services of men of the higher stamp, of men who are higher, as investigators, to the men composing the governing body of the Council; or, even of younger men who by their attachment to a higher sphere of work have already placed themselves, morally speaking, on a superior plane of thought and aspiration; unless, indeed, the whole scheme of control is thoroughly remodelled, and the present statutory controlling body is relegated to a subordinate place in the scheme of the Council. In this state of things it appears to us that the duty of Society—the conscious portion of our Society—would be not to go about *engaging* services of true workers by offering fees as remuneration for their work,—that would be placing them in a subordinate relation to the body of managers;—not to go about to *buy* them and so enjoy the reputation of having these people as so many officers working under control. No,—but the proper duty of Society would be first to assume the right attitude towards them by recognising their superior worth, and then to place before them all available resources in men and money, but without attempting to keep them under the tight control of a body of managers filling the highest place in a system of organisation. No,—the proper duty of Society would be not to demand a definite return through a body of Managers for services rendered to them; or as may happen, in the event of an inadequate return of work,—to demand an explanation,—but the proper duty would be to leave the worker absolutely free to work at his subject and the question of outturn wholly to the care of the worker himself. That would be in strict accordance with the ancient Indian spirit of honouring the learned and it would also be the best way of promoting Learning, promoting the highest interests of future Indian culture. The bane of modern Western civilization is *commercialism* in every department of man's activity, and it has begun to visibly invade and affect educational methods pursued in India from time immemorial. This spirit of commercialism with its inevitable system of organised control is ill-calculated to stimulate the aspiring life within; and it is not calculated to persuade original men devoted to Learning, or even men aspiring to devote themselves to Learning, to place themselves under the depressing conditions of life incident to a position of subordination to a Board of lay Managers in a scheme of organisation. Their only right position can be either of freedom or of authority; and the only function of outside people would be not to assume functions of control as a return for services rendered, but the right attitude for them to assume would be to place themselves in a relation of subordination to the workers as their active helpers. Neither in our National Council of Education, nor in other educational institutions in this part of our country that we know of, is there any provision made for the carrying out of this idea, nor even is the need for assuming this attitude towards workers devoted to Learning felt or appreciated.

INDIAN NATIONAL SELF-CONSCIOUSNESS AND INDIAN NATIONALITY: VIEWS OF DISTINGUISHED STUDENTS OF INDIAN CULTURE.—II

(Continued from pp. 9—11 of part II. of March, 1910 number)

V. Unity of Indian National Culture: Contribution by the Great Mughal Emperors

"Islam, in the days of its power rejoiced to establish itself as Indian on Indian soil. The architectural works of the Mughal Emperors are full of enthusiasm for the Indian past; for the Indo-Saracenic style owes as much to Rajputana as to Mecca and Constantinople. It would be hardly possible to think of an India in which no great Mughal had ruled, no Taj been built, or to which Persian Art and Literature are wholly foreign. Few great Indian rulers have displayed the genius for statesmanship which Akbar had, a greater religious toleration than he. The reign of Akbar was contemporary with that of Elizabeth, and with a still greater statesmanship and breadth of mind and heart, he undertook to inaugurate a vast *national*, as distinguished from a sectarian policy. Few, indeed, of the world's monarchs have ever used so marvellous an opportunity with such wisdom and magnanimity as this Emperor of Delhi. Akbar's three immediate descendants—Jehangir, his son, Shah Jehan, his grandson, and Aurungzeeb, his great-grandson—were all men of marked ability. They retained intact the Empire which his genius had consolidated. But unfortunately, of them all, Aurungzeeb's was the sectarian and somewhat narrowly devotional temperament of the English Catholic queen, better fitted to make him a Saint of Islam than welder of the Indian nationality, and Shah Jehan alone had a genius of administration comparable to his grandfather's of initiation. In other words, India had the misfortune in her own case to see Elizabeth succeeded, not preceded by Mary. Such were the four great Mughals, whose united reigns began two years before the accession of Elizabeth, and ended at the date of the Parliamentary union of England, and Scotland, scarcely yet two hundred years ago."

"Such were they all; but of them all, Akbar stands unrivalled in liberal statesmanship, and Shah Jehan in personal genius. In the hands of this last monarch the unity of India became a visible fact, symbolised by the dazzling beauty of his buildings, and even Pope Leo X must give way to him for taste. Now it was the *Taj*, raising its stately head above its jewelled walls and lace-carved windows of white marble, in inconsolable love and sorrow. Again, it was the *Pearl Mosque* of Agra, vast in proportion and almost unadorned, in severity of creamy stone, of sun-steeped court and shadowed aisles and sanctuary. Yet once more some dainty palace or exquisite oratory, the baths of an empress or the hall of audience of a king, testified to the fact that a lord of artists sat upon the throne. But it was not only in white marble that Shah Jehan gave the reins to *his pride in the Indian soil and the Indian people.* He built the modern Delhi, with her red walls, her broad streets, and her magnificent fortress. He made the *Peacock Throne,* of gold and jewels, which was removed to Persia by Nadir Shah a hundred years later. He and his court and household were collections of choice books and pictures. And, like all the Mughals, he was himself a past master in the art of illuminating manuscripts. In all this Shah Jehan proved himself the monarch, not of some section, but of all his subjects, and as such he is regarded by India to this day. He might not be in active sympathy with every phase of the popular creeds, but there is none who is cut off from sympathy with him. The enthusiasm that spoke in his works is deeply understood. His addition of a third style to the architectural glories of the country is never forgotten. And it is still remembered by the people that, according to the unanimous voice of history, India was never so well administered as in his day." *(Adapted from Sister Nivedita's Web of Indian Life and Dr. Coomaraswamy's writings.)*

PART III

SECTION I : NATIONAL EDUCATION MOVEMENT

THE BENGAL LITERARY CONFERENCE, 1910, AND THE BENGAL NATIONAL COLLEGE.

In connection with the Bengal Literary Conference which met this year at Bhagalpur on the 14th and the 15th February last, a very interesting and unique Exhibition was held of photographs of various places of archæological, antiquarian and historical interest, Buddhistic relics, geological specimens, Sanskrit, Arabic, Bengali, Hindi and Persian manuscripts, Ayurvedic medicines and scientific apparatus and instruments. The exhibits of the Scientific Section included many important instruments and apparatus (some 38 in number) turned out by the Scientific and Technical Workshops and the Chemical Laboratory of the Bengal National College, Calcutta. They were lent by the College authorities in response to an invitation from the conveners of the Conference. The more important of the exhibits were :—(1) *Glass Apparatus* manufactured in the Chemical Laboratory of the College, which included an Erdmen's Float, graduated Burettes and other graduated tubes ; (2) *Physical Science Apparatus* turned out by the College Scientific Workshop, including a Mirror Galvanometer (designed by Sj. Jagadindu Ray, the gifted Professor of Physics of the College), a Potentiometer, some Calorimeters, a Spherometer, a Photometer, a Screw-gauge and other apparatus for practical work in the Physical Laboratory ; (3) a number of *Microscopes turned out by the Technical Department of the College.** Sj. Jagadindu Ray, the Professor of Physics and Superintendent of the College and Sj. Manindra Nath Banerjee, Lecturer in Chemistry, Bengal National College, who had been specially deputed by the Executive Committee, attended the Conference, and explained to visitors at the Exhibition the construction, working etc., of these instruments. This part of the Exhibition, we are informed, attracted considerable attention of the visitors.

At the same Literary Conference, Sj. Manindra Nath Banerji read three papers respectively on the following subjects : (1) *Rasayanic Paribhasa* or *Indian Chemical Terminology* ; (2) the Nitre Industry in Tirhoot (Behar) and (3) Preparation of Makaradhwaja from a scientific point of view. Two papers on the first-mentioned subject were read at the Conference, one by Dr. P. C. Ray, and the other, by Sj. Bankim Chandra Mukerji. In his paper on *Rasayanic Paribhasa* or Chemical Terminology, Dr. P. C. Ray gave an interesting account of his own deep researches in the direction, showing how the ancient Chemistry of the Hindus contained some excellent technical terms, which exactly expressed the processes or properties involved and which even modern science could hardly improve upon. He also indicated that an exhaustive index of all the chemi-

* The lenses of course were imported articles.

cal terms in Bengali was in course of preparation by himself in collaboration with Pandit Harish Chandra Kabiratna of Calcutta. Sj Manindra Nath Banerji had been engaged for some time past on the same subject and his paper on *Bengali Chemical Terminology* was interesting as well as suggestive. He proceeded on independent lines and his contribution is a valued addition to the growing literature on the subject. Besides Sj. Jagadindu Ray, Lecturer in Phisics and Sj Manindra Nath Banerji, Lecturer in Chemistry, both of whom attended the Conference, as delegates of the National Council of Education, two other members of the College staff, namely, Sj. Radhakumud Mukerjee, M.A., *Premchand Roychand Student*, Lecturer in Economics, and Sj. Binay Kumar Sarkar, M.A., Lecturer in History and English, also attended the Conference. We are glad also that a representative of the Malda District Council of National Education, Sj. Bepin Behari Ghosh, B.L., Pleader, attended the Conference and read a thoughtful paper on the subject of National Education.



MOVEMENT FOR EDUCATION OF THE DEPRESSED CLASSES AND OF THE MASSES GENERALLY—IV

(Continued from pp. 25-30 of the March, 1910 number of this journal.)

I. Beginnings of Work in Bengal *(continued.)*

In the last preceding three numbers of this Magazine we have tried to give our readers an idea, however imperfect, of the efforts that are being made in different parts of the country to raise the educational condition of the depressed classes and of the masses generally. We have seen that Bengal in particular, which was till very recently so indifferent to the very important work of educating the depressed classes among the Hindus and the poorer sections of the Mahomedan community, has since begun to show signs of activity in the direction. We must confess that the efforts of our leaders, although encouraging for a beginning, are hardly equal to the urgent requirements of the occasion. We referred in our January issue to the keen struggle that has been going on for some time past between the Hindu higher castes and the Namasudras of the *Bill*-tracts in the districts of Faridpur and Backergunge and to the aggressive attitude assumed by the Namasudras to obtain social recognition. The most recent news, however, of a similar struggle between the depressed classes and the Kayasthas, a high caste people among the Hindus, for social rights and privileges comes from Syhlet and is told in some detail by the *Deshabarta*, a local vernacular weekly. There in one of the villages the Namasudras, the Malis, and the Kayasthas are at loggerheads. The Namasudras and the Dases of village Ontehari were quarrelling with one another for a long time past, with the result that the latter boycotted the former completely and took the vow that those amongst themselves who assisted the Namasudras, would be outcasted. Then, one Braja-

gobinda Das, a man of the middle classes among the Hindus, broke the vow and joined the Namasudras. So the Kayasthas and Dases of the place have stood against him—all in a body. The feeling of hostility has shown itself in the institution of as many as twenty-three lawsuits. So far for the Dases and Kayasthas on the one side and the Namasudras on the other. We now come to the case of the *Malis* of the place who are among the lower castes of the Hindu community.' The Malis have declared that if the Napits (barbers) and Dhobas (washermen) do not serve them, they will not bear the *palki* (palanquin) for them. While the *Sabdakar-caste* people have taken the oath that if the *Malis* and the Namasudras are averse to act as palanquin-bearers for them, they in their turn, will not serve the people of those castes on occasions of marriage. Thus, some sections among the depressed classes and low-caste people among the Hindus, such as the Namasudras, the Malis, the Dhoolis (village bandsmen), etc., on one side, and the Kayasthas on the other, have been quarrelling with one another with such bitterness that the Kayasthas have withheld lending money to them. This has temporarily suspended the frequent celebration of marriages in the several communities concerned. Not only this. The Zemindars have also ceased to avail themselves of the services of these depressed-class people in the matter of sowing operations. The struggle, in fact, has assumed various shapes and serious results are anticipated. The situation is, indeed, one that calls for a wiser treatment. And we cannot be too indebted to those of our people who have been trying hard to ameliorate the condition of the depressed classes by providing education to them.

Among the agencies working to this end, we consider the Faridpur District Association, to which we referred in our last issue, as one of the most important. One striking fact about the district of Faridpur is that one half of the Hindu population belongs to the Namasudra class, and the Association has set about its task for the amelioration of this class of the people with an amount of zeal and has achieved an amount of success which ought to furnish a strong incentive to work to our educated people in other districts of Bengal. The Association was started in August, 1907 with the following among other objects :—(1) To establish and maintain National Schools and to make provision for physical education, agricultural training and other special technical training in combination with the spread of general education. (2) To help in the manufacture of indigenous articles and the creating of a demand for Swadeshi manufactures, eschewing all foreign-made articles as far as practicable and giving preference to Swadeshi articles even at a sacrifice. (3) To bring about a relaxation of some of the hard and fast regulations of the caste system ; to remove evil practices among the different castes ; to form village associations and to strengthen Hindu Society in its efforts to enforce its rules upon its members. (4) To settle amicably by means of arbitration, disputes and differences between parties. The records of the Association for the first two years of its existence show that in all these departments of work a satisfactory

amount of work had been carried out. The Association has started Branches in a number of *thanas* or *Talukas*, and has over two hundred representatives enrolled as members. It has appointed regular preachers who work in the several *thanas* and are paid by monthly allowances. These preachers go from village to village, preach Swadeshi and furnish reports to the Association on such matters as education, sanitation etc. During the year 1908 twelve such preachers worked in ten of the *thanas* of the district, and it is noteworthy that three of them were Mahomedans.

The kind of educational work that the Association has been doing and with which we are more concerned here, owes much of its admitted progress to the efforts of these Swadeshi preachers. Wherever a preacher finds the necessity of starting a national primary school, he reports the matter to the Association, which then either directly starts, or help in the starting of such a school. In this way the Association has been increasing its sphere of educational work, and maintains at present no less than twenty-five National Schools in the district. One of these schools,—the National School at Kamargram, is a Secondary one, teaching up to the Fifth Standard Course of the National Council of Education, Bengal, while the rest are all Primary Schools. The most salient features of the schools under the Association are as follows:

The students in all these schools, with the exception of Kamargram and Burirhat schools and the Baonara Madrassa, belong to the artizan and the agriculturist communities. By far the largest numbers are *Namasudras*; then come the *Mahomedans* (agriculturist) and last of all the Sahas, Subarnabaniks and Kamars and other miscellaneous classes among the depressed population. In Kamargram, Burirhat and Baonara schools there are also lots of students of the above classes intermixed with boys belonging to the upper classes. Again, in many of the schools for the Namasudra and Mahomedan cultivators, there are boys and girls belonging to these communities reading side by side.

It also speaks well for the Association that among its members and its preachers there are Mahomedan gentlemen, and that among the managers or secretaries of schools under it are Mahomedan workers. And this fact, together with the one already indicated that all classes of students in the schools read side by side without any distinction of caste or creed, goes to show the national character of the Association and to testify to the existence of excellent relations between the two great communities, the Hindus and Mahomedans, of the district. The schools under the Association teach some 1200 students all told. The number of students in each of the twenty-five schools ranges from 24 to 100, while the average number reaches the fairly large figure of 48. Again, the Association not merely keeps supervision over these schools, but has rendered also pecuniary help to them in the form of monthly grants-in-aid. The total grant comes up at present to Rs. 77 every month, and they range from Rs. 2 to Rs. 10 separately; while the average grant to each school reaches over Rs. 3. Besides these grants, the Association has decided to spend Rs. 50 a month in maintaining an

Inspector of schools, at least for a period of six months in the year and limited as the resources of the Association are, it is not expected to do more at present. We now proceed to give some details about the progress of actual educational work which the Association has been the means of achieving. Of the fourteen *thanas* into which the district of Faridpur is divided, *all with the exception of one only*, possess one or more such schools each. The *thana* of Gopalgunge, which has the most high percentage of Namasudra population, counts no less than six schools under the Association.

The following list gives names of places where the schools under the Association are located with the amount of grant paid to each of them: *Thana Bhusana*—(1) Kamargram (High National school) Rs 10; *Thana Gopalgunge*—(1) Manikhar, Rs. 2; (2) Gobra, Rs. 2; (3) Majhiganti, Rs. 2; (4) Panchuria, Rs. 2; (5) Nabukhali, Rs. 2; (6) Manikhar (Night school), Rs. 2. *Thana Kotalpara*—(1) Hiran, Rs. 3; (2) *Daharpara*, Rs. 3; (3) Bagan Uttarpara, Rs. 2; (4) Dubagram, Rs 4. *Thana Baliakandi*—(1) Baonara Rajdharpur (Madrasa), Rs 5; (2) Sonaikuri, Rs. 2; (3) Ramnagar, Rs. 2. *Thana Muksudpur*—(1) Khalagram, Rs. 2; (2) Nizamkandi, Rs. 2. *Thana Pansa*—(1) Para Belgachi, Rs. 2; (2) Helancha, Rs. 3. *Thana Nagarkanda*—Solapur, Rs. 2. *Thana Madaripur*—Bajitpur, Rs. 2. *Thana Gosanger Hat*—Burirhat, Rs. 10. *Thana Palang*—Yogpatta, Rs. 3. *Thana Bhanga*—Bhangarpara, Rs. 2. *Thana Rajbari*—Sajjankanda, Rs. 2. *Thana Sadarpur*—Nijagram, Rs. 2.

The above facts are sufficiently encouraging; but it should be remembered that out of a total population of about nineteen lakhs and a half, so much as about three lakhs and a quarter are Namasudras and about ten lakhs are Mahomedans; and it is clear that there is an almost unlimited field of work for the Association. Thus, although the Association will have to extend its operations many times over before it can adequately meet the requirements of the District, still the success it has already achieved in the line of educational work among the depressed classes of the Hindu community and the poorer classes of the Mahomedans calls for special commendation.

It would be invidious to mention names; still we feel we should be wanting in the discharge of our duty if we did not mention the honoured name of Sj. Ambika Charan Muzumdar, M.A., B.L., President of the Association, as one of the prime-movers in this particular educational work, to whose lead the movement owes so much.

LITERARY WEALTH OF INDIA: SEARCH FOR PRAKRIT MANUSCRIPTS

I

During the last two or three years I was busy collecting Prakrit works, especially grammatical works in Prakrit. In my search for those works I saw a

small note in the Indian Antiquary* about शब्दचिन्तामणिवृत्ति by शुभचन्द्र. After a few days I saw a quotation in Dr. Hoernle's edition of Chanda's *Prakrita Lakshmana* from a Prakrita grammar by Subhachandra along with the quotations from those of Hemachandra, Trivikrama and others. Anxious to procure a copy of the work I referred to Prof. Aufrecht's *Catalogus Catalogorum* to find out the place where the work is to be found. To my astonishment I found the following remark under Subhachandra.

"शुभचन्द्र—शब्दचिन्तामणिवृत्ति—In the proceedings of Asiatic Society of Bengal 1875–77 a Prakrit grammar is mentioned called औदार्यचिन्तामणि by Subhasagara which may be identical with the present work. But I doubt whether the name Subhasagara has ever been heard of by any one else than by my honoured friend Mitra."

Nothing enlightened on the point for which I referred to the Catalogue and being the more anxious I referred to the notices of Sanskrit Mss. by Dr. Rajendra Lal Mitra and found the following entry in Vol. III. page 19.

"But the most important of my acquisitions are some treatises on the grammar of the Prakrita language. These include 1st *Audaryachintamany of Subhasagara.* ... ... Name of these has been noticed in Prof. Lassen's *Institutones Linguae Prakriticae* and all of them will I think be new to European scholars. The first I believe is the same which Dr. Hoernle has noticed in the Indian Antiquary of August last (1873); but it is there described as the work of one Subhachandra. My codex comprises only two chapters. It has been copied from a text which from the appearance of its paper and the antiquated form of its writing I believe is about five hundred years old."

From the above remarks it appears that Sabdachintamanivritti by Subhachandra must be the same as Audaryachintamani, the author of which must be either Subhachandra or Subhasagara. So with the hope that my desire will be fulfilled, I at once got Audaryachintamani on loan from the Library of the Asiatic Society of Bengal (Government Collection). When I went through the work for the quotation of Dr. Hoernle, I neither found the quotation in the work nor any possibility of its being found in the work as the author does not use independent signs as Trivikrama does in his grammar. So I set it down that this work is not the same as Sabdachintamanivritti by Subhachandra. Being disappointed in one particular I naturally began to doubt the reality of the other statement also; and strange to say, my surmise has turned out to be a reality.

II

The author of this work is not Subhasagara, but one Srutasagara as is evident from the following extract found in the colophon at the end of each Adhyaya * * मुमुक्षुश्रीविद्यानन्दिप्रियशिष्य श्रीमूलसंघपरमात्मविदुष सूरि श्रीश्रुतसागरविरचिते औदार्यचिन्तारत्नमालि

* Page 29 of 1873.

Again, we have a commentary on Yasastilakachampukavya (Ed. Kavyamala 70) by one Srutasagara who writes the following in the colophon to that work at the end of every Asvasa,

इति श्रीविद्यानन्दिभट्टारकप्रियशिष्येण * * तर्कव्याकरणछन्दोऽलंकारसिद्धान्तसाहित्यादिशास्त्रनिपुणमतिना प्राकृतव्याकरणाद्यनेकशास्त्रचणाचुञ्चुना सूरि श्रीश्रुतसागरेण विरचितायां.

From the two colophons we see that the two Srutasagaras were the Sishyas of the same Sri Vidyanandin and the second author has composed a Prakrita grammar. So we may conclude that the author of this Audaryachintamani must be the same Srutasagara the author of the commentary on Yasastilakachampukavya.

Now a critic may question whether the two authors may not be Subhasagaras only instead of Srutasagaras. It is easy to clear this doubt. We must thank the author himself for having dispersed the cloud around his own name. He cites his own name as an example for तकारलोप under the 157th. sutra of 1st Adhyaya. According to that sutra श्रुतसागर: becomes सुअसाअरो. If his name had been शुभसागर: it should have assumed a different form सुहसाअरो according to another sutra. Again at the end of the 5th Adhyaya he inserts a verse* with his own name in it. There it is given as श्रुतसागर. If his name had been शुभसागर the chandas (metre) of the sloka will be spoiled. So we may undoubtedly say that the author of Audaryachintamani was Srutasagara only.

III

Let us now consider who this Srutasagara was, what were his other works and when he flourished? As with all Sanskrit authors, we cannot answer the above questions to one's satisfaction. Yet I shall make bold to publish the following few statements about the author and his time. Srutasagara was a fierce Digambara jaina and he devoted the greater part of his attention to crushing the rival sect. He was the pupil of Sri Vidyanandin who was the pupil of Devendrakirti. He was skilled in Sanskrit and Prakrit poetry. The following are some of his works which came under my notice. There may be some others also.

Audaryachintamani (औदार्यचिन्तामणि); a commentary on Shatprabhrita (षट्प्राभृत); a commentary on Yasastilakachampu (यशस्तिलकचम्पू); Anantavratakatha (अनन्तव्रतकथा); Jainendrayajnavidhi (जैनेन्द्रयज्ञविधि); Sidhachakrārchanastakanibandha (सिद्धचक्रार्चनाष्टकनिबन्ध); Tatwarthatika (तत्त्वार्थटीका); Jnānārnavagadyatika (ज्ञानार्णवगद्यटीका); Vratakathakosa (व्रतकथाकोष); Ekibhāvastotra (एकीभावस्तोत्र); Purandaravidhikathopākhyānam (पुरन्दरविधिकथोपाख्यानम्); Dasasutritikatatwarthi (दशसूत्रिटीकातत्त्वार्थी).

It was from the first three that we learn what I have above written about the author.

IV

This work Audaryachintamani is a treatise on the Grammar of the Prakrita language. The book consists of six chapters, but the last portion of the sixth

* समन्तभद्रैरपिपूज्यपादैः कलङ्कमुक्तैरकलङ्कदेवैः ।
सदुक्तमप्राकृतमर्थसारं तत्प्राकृतं च श्रुतसागरेण ॥

chapter is wanting. I am at a loss to understand how Dr. Rajendra Lall Mitra was able to see only two chapters in this work, and name the author as Subhasagara although at the end of every chapter his name is given as Srutasagara. The author does not use the Samjnas or signs of Panini or Hemachandra but makes use of new ones. As for instance in the Sutram पाटिचपेटयोर्वा Srutasagara writes इनंतपटिचपेटायां भवति. But in the corresponding sutra चपेटापाटौवा Hemachandra says चपेटाशब्दे ण्यन्ते च पाटौ धातौ टस्य लो भवति. What Hemachandra calls ण्यन्त our Srutasagara calls as इनंत. This justifies the statement of the author—

समन्तभद्रैरपि पूज्यपादैः कलङ्कमुक्तैरकलङ्कदेवैः।
यदुक्तमप्राकृतमर्थसारं तत्प्राकृतश्च श्रुतसागरेण ॥

that he is composing only a sequel to the Grammar of Akalanka Pujyapada which does not treat of Prakrita. So the Samjnas in my opinion will be the same as those of Akalankapujyapada. And he quotes some sutras* of sanskrit grammar here and there and these are not found in any other grammar. So I suppose these also to belong to Akalankapujyapada's Jainendra-vyakarana.

This work is more extensive and explanatory than those of Hemachandra and Trivikrama as will be evident from the following extracts.

1. Hemachandra : प्रभूतेवः ॥ प्रभूते पस्य वो भवति। वहुत्तम् ॥
   Trivikrama : same as Hemachandra.
   Srutasagara : वः प्रभूते ॥ प्रभूतशब्दे यः पस्तस्य वकारो भवति। वहुत्तम् ॥ बहुत्व-मित्यस्य च वहुत्तम् ॥
2. Hemachandra : कदलाां अद्रुमे ॥ कदली शब्देऽद्रुमवाचिनि दस्य रो भवति। करली। अद्रुम इति किम्। कयली। केली ॥
   Trivikrama : अद्रुमे ऽदलाम् ॥ अद्रुमवाचिनि कदलीशब्दे तोः रत्वं भवति। करली। अद्रुम इति किम्। कयली ॥
3. Srutasagara : कदलां गजपताकायाम् ॥ कदलीशब्दे यो दकारः तस्य रकारो भवति। गजपताकार्थे वाच्ये। करली। गजपताकायामिति किम्। केली कयली। अंशुमत्फला ॥

I give only two examples above. There are many other such instances in the works.

V

It remains now only to say something about the time of the author. I can say nothing more than what Dr. R. G. Bhandarkar wrote on the subject. He argues that " Srutasagara was the pupil of Sri Vidaynandin who was the successor as high priest of Devendrakirti. Devandrakirti's predecessor was Padmanandin. In a work entitled Sudarsanacharita by Nemidatta, Simhanandin is represented as Nemidatta's teacher and as the pupil of Mallibhushana. Nemidatta wrote another work called Sripalacharita in Samvat 1585. Here he gives the following succession list

1. Padmanandin—High priest of Sarasvatiya Gachcha of the Muta

* आदतः स्त्रियां इत्यनेन संस्कृतलक्षणेन ; इविरादौ सर्वे ; शूद्रादय इत्यनेन ॥

Samgha; 2. Devendrakirti; 3. Vidyanandin 4. Mallibhushana, teacher of Simhanandin who was the teacher of Nemidatta. Samvat 1585.

Simhanandin the author's teacher was the pupil of this last. Nemidatta represents himself as "devoted to the service of Srutasagara and other Yatis." So that Srutasagara's literary activity must be referred to about the year 1550 samvat or 1494 A. D.

VI

In the August 1908 issue of the "Journal and Proceedings" of the Asiatic Society of Bengal was published a list of Jaina manuscripts deposited in the society's library. The list was prepared by Pandit Kunja Vihari Nyayabhushana Esq., Oriental librarian of the Society. The list was intended to include all and only Jaina works. I was quite astonished not to find this work in the list. I am afraid that the Librarian did not think this to be a Jaina manuscript. The said list in addition to not containing this Jaina work includes some other works, such as ईश्वरप्रत्यभिज्ञाहृदयं by क्षेमराज, कल्पतरुकोशनिघव, and बृहत्प्रत्यभिज्ञा, which are not Jaina works.

VII

A few words about Prakrita grammars in general and I shall have done. There are two schools of grammar in Prakrita dealing with the two dialects of the Prakrita Language. The works of Chanda, Hemachandra, Trivikrama, Subhachandra and Srutasagara dealing mainly with the Jaina dialects of Prakrita, the language of the Holy Sutras of the Jains and other Prakrita works of Jaina authors. The rest such as Prakritaprakasa of Vararuchi, Samkshiptasara of Kramadisvara, Prakritasarvasva of Markandeyakavindra, Kalpataru of Ramatarkavagisa and others deal with the Aryan Prakrit dialects used in the ordinary works, as for instance in the Sanskrit dramas of the present day. Of these Prakrit Grammars, those on the Aryan Prakrita are found but rarely here and there. The rest such as Hemachandra, Trivikrama &c. are very generally known and copies found everywhere. So persons studying the Sanscrit works in which Prakrita appears should study the treatises on the Aryan Prakrita dialects.* Why they should study these works only will be evident from the following extract from the commentary on Mrichchhakatika.

"अत्रास्मिन् प्रकरणे प्राकृतपाठकेषु सूत्रधारी नटी रदनिका वसन्तसेना तन्माताचेटीकर्णपूरक: चारुदत्तब्राह्मणी शोधनक: श्रेष्ठी एते एकादश शौरसेनीभाषापाठका: । अवन्तिभाषापाठकौ वीरकचन्दनकौ । प्राच्यभाषापाठको विदूषक: । संवाहक: शकारवसन्तसेनाचारुदत्तानां चेटकत्रितयं भिक्षुचारुदत्तदारक: । एते षण्मागधीपाठका: । अपभ्रंशपाठकेषु शकारीभाषापाठको राष्ट्रीय: । चाण्डालीभाषापाठकौ चाण्डालौ । टक्कभाषापाठकौ माथुरद्यूतकरौ ॥"†

* *Prakrita Prakash*, with its four commentaries, *Sanjivani*, *Monorama*, *Subodhini* and *Manjari; Samkshiptasara* with *Prakritadipika* of Chandidevavarman, etc.

† *Running translation of the above :—i. e.* among the speakers of *Prakrita* dialects in this play the Manager, the Actress, Radanika, Basantasena, her mother, her female attendant, Karnapuraka, the Brahmin wife of Charudatta, Sodhanaka, and the Provost, these eleven speak the Sauraseni dialect: Biraka

From this we learn how many languages are met with in this work. And these languages were not treated of in the Jaina Prakrita grammars of Hemachandra, Trivikrama &c. All these are found in the other set of grammars. Sanskrit Pandits of to-day study most probably Hemachandra and others, and when any Prakrita word in the dramas appears to be ungrammatical according to them, ignorantly go to correct the word according to their grammar. I have known instances of such corrections. So I had to lay so much stress on this point. So grammars of Hemchandra's school are of no practical use in these days as those of the other school, although many words assume the same form according to the two sets of grammars. So I would advise persons wishing to study Aryan and Dramatic Prakrita, to study Prakrita Sarvasva, Kalpataru, and other works stated above which only will be of any practical use to them.

I give below a few of the verses occurring in the work, Audaryachintamani, which may be in any way helpful in inferring something about the author.

अथ प्रणम्य सर्व्वज्ञं विद्यानन्दास्पदप्रदम्
पूज्यपादं प्रवक्ष्यामि प्राकृतव्याकृतं सताम् । २ ॥
श्रीपूज्यपादसूरि विद्यानन्दी समन्तभद्रगुरुः ।
श्रीमदकलङ्कदेवो जिनदेवो मङ्गलं दिशतु ॥ २४४ ॥
श्रीकुंदकुंदसूरे विद्यानन्दीप्रभाश्च पदकंजम् ।
नत्वा च पूज्यपादं संयुतामतःपरं वक्ष्ये ॥ ७ ॥
श्रीपूज्यपाद नकलङ्क समंतभद्र श्रीकुन्दकुन्द जिनचन्द्र
विद्याख्यसंज्ञाः । श्रीमाघनन्दि शिवकोटिशिवा
यनाख्या विद्यानन्दिगुरवः शममी दिशन्तु ॥ २७९ ॥
श्रीसर्व्वज्ञमदोषं तदुक्तवचनानिनिखिलसुखभवनम् ।
नत्वा विद्यानंदं स्त्राद्यध्यायं प्रवक्ष्यामि ॥ २ ॥
विद्याविरोधं नोधनिधिसाधुनिस्तवादिः श्रीमाशुमाप्रभु
रनन्तरपूज्यपादः । मंवो ददातु सदयः शुभदानदक्षो
विद्यादिनंदिगुरु रामविदां मुमुक्षुः । १४९ ॥

N. B. In conclusion I have to state that I was not able as yet to see Subhachandra's Grammar. I do not know when I may succeed in my attempt. All my attempts till now have failed.

ARSHA LIBRARY
Vizagapatam
February 1, 1910.

S. P. V. RANGANATHASVAMI.
ARYAVARAGURU
Member of the Asiatic Society of Bengal.

and Chandanaka speak the Avanti dialect; the jester-companion speaks the Prachya dialect; the Message-men, the three attendants of the king's brother-in-law, of Vasantasena and of Charudatta, the Buddhist monk and the son of Charudatta, these six speak the Magadhi dialect; the wife of the king's brother-in-law speaks the Apabhramsa dialect; the Rashtriya speaks the Bhasha dialect; the two *Chandalas* speak the Chandali dialect; and Mathura and the two gamblers speak the Dhakka dialect.—*The Editor, Dawn Magazine.*

SECTION II : STUDENTS' COLUMN

NEAR BHUBANESWAR : THE TEMPLE OF GOURI DEVI

In the March 1910 number of this Magazine a very interesting article on "Bhubaneswar and its world-famed Temple" from the pen of Sj. Ganapati Ray was published. The writer begins his article with an account of his journey from the city of Calcutta to Bhubaneswar with special reference to the precincts of Orissa and gives a bird's-eye view of the town which was for some six centuries the capital of the Kesari Kings, who were great patrons of learning in literature, science and art. The town of Bhubaneswar, in Orissa, is, no doubt, noted far and wide for its sanctity as the repository of a large number of Hindu temples which lie scattered about within its limits. Some of these temples are exceptionally beautiful and are of high architectural value and the most famous of them all is, of course, the temple of Lingaraj Mahadeva, better known as the temple of Bhubaneswar, which was the writer's main subject-matter, and which is admittedly regarded as one of the grandest and finest monuments of Hindu architecture. The town itself has many charms and the scenery it presents at places are very attractive. The Bindusaravar, a miniature lake, is another object of interest. It is a tank surrounded on three sides with groups of temples and having in the centre of it a temple, which cannot but excite the admiration of a visitor. The water is held in great veneration by the pilgrims, as it is supposed to be a composition of holy waters from all the famous shrines of the Hindus, and they bathe in the tank and perform religious rites by its side. Besides these notable objects, there are many other temples and shrines in Bhubaneswar, which the writer has not failed to notice, and which furnish striking evidence of the artistic skill of the ancient artisans of Orissa. "All these shrines" says the writer, "cluster round this lake (Bindusarovar), but at considerable distances, say one is half a mile, another is one mile, and so on. Far from this *Sarovar* there are many temples now covered with dense forest. It is said that seven thousand shrines once clustered round this sacred lake of Bindusarovar." Bhubaneswar is thus full of temples and shrines, most notable among them being the temple of Lingaraj Mahadev to which we have already referred.

But there are other temples outside the boundaries of the temple, but near to it, which, though not so important as the far-famed temple of Bhubaneswar, are still remarkable monuments of Orissan art. These temples are situated in the maidan by the bank of the river *Gangeya*, that runs along the foot of the rocky tableland, and the principal of them are nine in number, namely, the temple of *Gouri*, the temple of Parusrameswar, and those of Kedareswar, Mukteswar, Sidheswar, Raja Rani, Bhaskareswar, Megheswar and Brahmeswar. Of these nine temples, the temple of Gouri Devi, which forms the subject-matter of my present narration, is situated about a quarter mile off the great temple of Bhubaneswar.

The history of the origin of the above temple is thus briefly told. It is

said, that a '*Siddhapurusha*' or saint came to the place with a *tapaswini*, a female anchorite, when the place was full of jungles and built a holy cottage or *asram* and together practised *Yoga* and austerities, and it is on one and the same day attained *Samadhi* or salvation of their souls, in the course of a few years. They are believed to have come from the Deccan and possessed wonderful spiritual powers. When the Raja of Bhuvaneswar came to know of their demise, he caused two temples to be erected on the spot where they attained *Samadhi* and set up two images in the two temples, viz., one a Linga of of Mahadeva (दक्षिणामूर्त्ति), and other, an image of Gouri, called Gouri murti. This image of Gouri, is a beautiful specimen of sculpture, having been represented in the figure of a virgin girl. The face is nicely cut, the proportions of the limbs are well maintained and the contours of the body most skilfully depicted. The ornaments and the *saree* worn by the Devi have been artistically carved on the body with graceful foldings and pilgrims of both sexes feel enchanted at the sight of the image of Gouri Devi.

As time rolled on, the temple of Gouri was neglected, with the consequence that it began to show signs of decay and portions of it actually fell down. A rich inhabitant of Bhubaneswar, Sivaram Santra by name, then came forward with help and the temple was repaired. This repair, however, was carried out very clumsily ; for, the loose stones, that had fallen down from the sides of the temple were merely piled up with sand and lime in such a manner that the body of the temple was merely prevented from falling down. The present fantastic shape of the building is due to this circumstance. The two front wings are still missing and the dome with *kalasa* and other accessories are gone. It is the duty of the Hindus to help in renewing or rebuilding the two missing wings. rectifying the defects in the walls, and building the roofing dome and replacing the missing *kalasa*, on the top. The work of reparation of the temple being urgent, it was undertaken two years since by Swami Keshabanand Brahmachary and it progressed for some time under the superintendence of Rai Prasanna Kumar Pal Saheb, an expert engineer of Bhubaneswar (B. N. Railway) ; but it was soon suspended for want of adequate funds. It appears that the work of repair would again be resumed and efforts are being made to collect funds for the purpose and a public appeal has been issued through the newspapers calling for donations to be sent to the engineer Rai Saheb at his above address. We hope that this time the progress would be satisfactory and the work of replacing and rebuilding would soon be completed.

Like the Bindusarovar at Bhubaneswar there is a sacred 'sarovar' very close to the temple of Gouri Devi, which is also, like the Bindusarovar, an object of sacred interest. This reservoir, having connexion with a bed of spring, supplies water all the year round ; and the water is very good and clear and the *sadhus* compare it with the water of the Ganges at Hardwar. It never gets dirty or defiled, as the spring is perennial. Numerous people, pilgrims as well as local men, daily repair to that place to take a bath in the tank and to worship the god and goddess.

D. C. S.

Question: How can Indian Students increase their **Love of Country?**
Answer: **This can be done by—**

i. Increasing their knowledge of Indians and of Indian Civilisation, esp. Hindu and Islamic,
ii. Working together for something useful to their district, town or village,
iii. Supporting indigenous industries and enterprises, even at a sacrifice,
iv. Supporting Indian Educational and Allied Movements which aim primarily at fostering the unselfish instincts and developing the constructive faculties of the Indian mind.

THE DAWN — AND — DAWN SOCIETY'S MAGAZINE

एकरूपेण ह्यवस्थितो योऽर्थः स परमार्थः ।

That which is ever-permanent in one mode of Being is the TRUTH.—Sankara

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PART I: INDIANA

INDIAN NATIONALISM AND INDIAN ART: BEGINNINGS OF A NEW MOVEMENT—I

I

Among the movements that are stirring the dry bones of India at the present moment, none the least significant is that which seeks to restore to Indian Art, especially to Indian Fine Art, its rightful place not only in the national estimation, but also in the life of the nation. Only a decade ago, very few among the educated Indians seemed to be conscious that there was any such thing as an indigenous fine art in India, or that even where it existed, it had any bearing on the future development of Indian art and culture. The students who resorted to the Art schools established by Government had no other aim before their eyes than to imitate the technique and methods of modern European art, and it was generally believed that the best way of dealing with young Indians specially endowed with artistic gifts was to send them to Italy and to France for higher art education. It was Mr. E. B. Havell, late Principal of the Calcutta School of Art, who first drew prominent attention to the existence of a highly developed school of Indian painting in Mughal times, by starting a collection of old Indian paintings in the Calcutta Art Gallery, which was then under his control. These paintings in Mr. Havell's collection, so exquisitely charming in their manner, method and technique, as genuine expressions of certain aspects of Oriental life and character, fired the genius of a gifted Bengali artist, Srijut Abanindra Nath Tagore, who by adopting this old indigenous art as the basis of his work, has already within this short period, been able to draw round himself a group of earnest

disciples and fellow-workers, whose work gives the earnest of a new revival of true Indian art, Indian at once in subject-matter, sentiment and mode of expression. But the work of this new school as well as the masterpieces of old Buddhist and Hindu Art that flourished in pre-Muhammadan India, were litttle known to the public till the writings of Sister Nivedita and Dr. Ananda Krishna Coomaraswamy D. Sc., a distinguished Sinhalese art-critic, in the *Modern Review* and several other Indian journals, and last, though not the least, Mr. Havell's own monumental book on *Indian Sculpture and Painting*, drew pointed attention to the high merit of Indian Art of all periods, and especially to the significance of this art for the future development of Indian national life.

II

In March, 1907 several distinguished European and Indian gentlemen interested in Indian Art formed themselves into a Society called the *Indian Society of Oriental Art*, with the object of "encouraging and cultivating an appreciative interest in Indian Art," and especially of "encouraging and assisting in every way practicable, and if need be financially, all indigent and deserving artists (students or otherwise) in painting, sculpture and the fine arts generally." Within the few years of its existence, the Society has done splendid work in this direction and has to a great extent succeeded in rousing the interest of the educated public, Indian as well as European, in the splendid achievements of Indian Art, especially in the field of Painting, both in the past and in the present. The Society may justly claim to have made the first organised attempt at a reversal of the denationalising processes which have hitherto been at work; and the efforts towards this end of Mr. Havell and Dr. Coomaraswamy as well as of the Society have certainly, as has been aptly put by the Hon. Mr. Justice Woodroffe, President of the Society, "aided the growing national consciousness to reach the point of recovery which we trust, is the commencement of the renaissance of a true Indian Art."*

One of the means adopted by the Society for rousing public interest in Indian Art, ancient as well as modern, is the holding of annual Exhibitions of Oriental Art, especially of Oriental Painting at Calcutta. Up till now the Society has held two such Exhibitions, one in January 1908, and another in February this year. Another Exhibition of Fine and Applied Oriental Art had been planned for January 1909, but owing to the paucity of the exhibits sent in and their general

* *Vide* an appreciative notice of the New Schools of Indian Painting contributed in the *Kokka*, a well-known Japanese Art journal, by Mr. Justice Woodroffe.

inferiority, it was impossible to carry out the original plan. The first Exhibition which was held in January 1908 was more or less of a miscellaneous collection, consisting as is did of several Chinese and Japanese paintings, mediaeval Indian paintings of the Mughal and Kangra (Hindu) Schools, the works of several Indian artists executed in the European system, as well as several paintings representing the new Indian school of Sj. Abanindra Nath Tagore and his disciples. The Exhibition was acknowledged to be a notable success and succeeded in arousing a good deal of interest among the public. Two scholarships of Rs 15 per mensem for three years were on this occasion presented to the Society,—one by the Hon. Mr. Justice Woodroffe, and the other by Sj. Gaganendra Nath Tagore. The former was awarded to Sj. Nanda Lal Bose, and the latter to Surendra Nath Ganguly (since deceased), both of them distinguished disciples of Sj. Abanindra Nath Tagore; besides which Rs. 844 was subscribed to the special Prize Fund and distributed among nine exhibitors, including a "Travelling Burse" of Rs. 306 to Babu Ishwari Prasad, a colleague and fellow-worker with Sj. Tagore. The Society's specially designed Diploma was also awarded to twelve exhibitors.

III

We now proceed to the Society's Second Exhibition which was held in February this year (1910), at the Calcutta Government Art School in Chowringhee. Though it was mainly an Exhibition of Oriental Painting, yet the exhibits taken together might be said to touch on all the main movements of Indian history. First of all, we have the bronze and copper images of Hindu and Buddhist divinities, mainly from Tibet and Nepal, but also from Ceylon and other parts of India, the painted temple-banners from Tibet, as well as the utensils and accessories of temple worship. These take us back to the pre-Muhammadan periods of Indian history, to the tradition of an India untouched by the influence of Islam, when Indian spirituality, Hindu as well as Buddhist, reigned supreme all over the land and even extended its sway beyond the geographical borders of India. Then, we have the mediæval paintings, Musalman as well Hindu, which take us to the days of the great Mughals of Delhi and of the feudal princes who held court in the splendid cities of Rajputana, and to the days of Nanak, and Kabir, Chaitanya and Tukaram, and a host of other leaders of religious thought. It was at the courts of these rulers of Northern India, Mughal as well as Rajput, and in the rural areas influenced by the religious teachings of the saints named above, that India was witnessing during the 16th and 17th centuries, to a movement of mutual

understanding and *rapproachement* between Hindu and Islamic modes of life and thought, a movement fraught with the greatest and most far-reaching results in the fields of Indian religion, literature, art, architecture and music. Last of all, when we turn to the exhibits from Southern India, the Tanjore *Vinas*, the finely woven mats, and the exquisite specimens of ivory-carving, and on the other hand, to the paintings of Srijut Abainindranath Tagore and his pupils, we are brought back to our own times. The *vinas* and mats and ivories speak to us of the beautiful old-world craftsmanship and artistic skill that still survives in our midst, and may, only if we desire it, still invest our modern life with beauty and noble refinement. The paintings of the new Bengal School on the other hand represent the cravings and aspirations of the modern National Movement in India, so far as it seeks to draw inspiration from the true Indian ideals and modes of life and thought.

IV

Let us take first of all the specimens of the old Hindu-Buddhist art as were on view at the Exhibition. The most remarkable of these were several Buddhist bronze images from Tibet and Nepal, belonging to the Calcutta Art Gallery. The former, as well as some of the painted temple-banners from Tibet were brought from that country by the Tibetan Expedition of 1904. To understand the true nature of these Buddhist images and their place in the history of Indian culture, it would be necessary to take a rapid survey of the successive stages of transformation through which Buddhism passed in India from the 5th century B.C. down to the 12th century A.D. During the earliest periods of the history of the Church, Buddhism was essentially a system of human ethics marked by an entire absence of transcendental or mystic elements, the Buddha himself being regarded as a merely human teacher who taught to mankind by means of precept and example, through a series of rebirths on various planes of existence, the ways of right conduct in this world, the lessons of charity, sacrifice, rectitude and such other purely *ethical* virtues. The only element of worship that could enter into such a system was the worship of the Great Teacher himself and of the Apostles that followed him. But as the Buddha had, according to the philosophy of the system, ceased to exist since the day of his *Nirvâna*, his followers satisfied their natural craving for a cult by paying worship to the memorial mounds called *stupas*, erected to preserve relics of the Buddha or other Buddhist saints, or to mark the spots where incidents in the life of the Buddha in any of his births were supposed to have happened, as well as to such symbols of the Teacher as representations of the Bodhi tree and of his

foot-prints. Quite naturally the Art of this period (3rd century B.C. to 1st century B.C.), as we find it on the carved stone rails and gateways of the stupas at Barahat and Sanchi in Central India, reflect these characteristic features of the religion of the period. It had a twofold aim, as Dr. Coomaraswamy points out, of affectionate decoration or ornamentation of the memorial *stupas* on the one hand ; and on the other hand, of illustrating the stories of the *Jâtakas* or rebirths of the Buddha, which instilled into the minds of men moral and ethical principles. One feature of Buddhism, nay of all Indian religious systems, is its keen perception of the unity of all life, whence the intense feeling for nature and animal life displayed in the art, literature and institutions of the country. And this feature is strongly reflected in the Barahat and Sanchi sculptures, in the way in which plant and animal life have been introduced in the decorative design as well as in substantive groups (*e. g.*, in the scenes where animals are represented as bringing flowers and offerings for worship ; in the hunting scenes ; in the processions headed by gaily caparisoned elephants and horses, in pieces of water teeming with lotuses, water-fowl and fish, and here and there a buffalo cooling itself in the water, and so on) ; the treatment everywhere being full of sympathy, kinship and affection, and, as it were, translating for us in forms of sculpture the feeling that animated the pious and benevolent edicts of Asoka, the royal representative of the age.*

V

About the beginning of the Christian era, Buddhism enters a new phase. Perhaps there lay in the Buddhism of the earlier period, as the secret teachings perhaps of Buddha himself,—ideas which gradually took form and developed in connection with the renaissance of Sanskrit Learning and the growth of *yogic* ideas, as in the writings of Patanjali and so on. This was what is known as the *Mahayana* Buddhism, which we first find in full development during the first and second centuries A. D. Buddha is now no longer conceived of as a human being, of the elements of whose personality after his last incarnation nothing whatever remains ; he has come to be looked upon as what the Hindus call an *avatar* (अवतार). Gautama Buddha, the earthly teacher is no other than an incarnation on earth of a higher spiritual entity subsisting on a higher plane of existence. Thus arose the conception of the *Dhyani Buddhas*, the divine archetypes of the earthly Buddhas. Another new conception in *Mahayana* Buddhim is that of the *Bodhisattvas*. These are spiri-

* Our Calcutta readers may be interested to learn that most of the Bârahat sculptures as well as plaster casts of a few panels from Sanchi can be studied any day in the Indian Museum at Calcutta where they are deposited.

tual beings of a lower rank than the Buddha, always actively engaged in guiding, helping and directing the course of evolution of the world, protecting it from evil and inspiring mankind with faith and courage during the intervels between the advent of one Buddha and of another. The *Bodhisattvas* and their *Sakti*-s (शक्ति),—the *Tara*-s, thus occupy the same place in the *Mahayana* system as the gods and goddesses of the Pauranic pantheon in Hinduism, and in fact there is very often a close parallelism and correspondence between the deities of either system. *Avalokitesvara* (अवलोकितेश्वर) or Padmapani Bodhisattva (पद्मपाणिबोधिसत्त्व), for example, the god of mercy and compassion, is other than the Buddhist counterpart of Vishnu, so that it is often very difficult to distinguish between the early images of the two divinities. *Manjusri*, another *Bodhisattva*, with book in one hand, and sword, that dispels the darkness of ignorance in the other, is the Buddhist counterpart of Brahmâ, the god of knowledge or wisdom. *Vajrapani*, again, the holder of the thunderbolt, may be likened to Indra or to Siva. It must be remembered that the period of the culmination of the *Mahayana* faith, namely the period covered by the 5th and 6th centuries A. D., is also the period of a great revival of Pauranic Hinduism ; and for some time the two religions went side by side, both inspired by similar aims and methods. Their art and philosophy ran parallel in many ways, until ultimately *Mahayana* Buddhism died out in India, being absorbed and incorporated within the body of Hinduism, except in certain outskirts, such as Kashmir, Nepal, and Ceylon.

VI

(A)

These features of the religious history of the age are naturally reflected in Art; for Indian Art, like Indian Philosophy, Literature, and Music, is essentially religious. Images of the Buddha, now no longer a mere human teacher, as well as of the Dhyani Buddha-s, Bodhisattva-s, and Tara-s, begin to be made and worshipped in all parts of the Buddhist world. It is in these images dating from the 5th, and 6th, and 7th centuries of the Christian era, that Indian Art received its highest and most characteristic embodiment. The keynote of this Art is its Idealism. Its aim was not to imitate the external forms of Nature, but to reproduce in externally visible form the mental image of a divinity constructed and defined within the mind by a process of meditation. The most characteristic embodiment of the 'Divine Ideal' in Indian Art is that based on the conception of the Buddha, and ultimately of other divinities, Buddhist as well as Hindu, as the Great Yogi seated in an attitude of contemplation, or in other characteristic

attitudes of preaching, blessing, etc. We had at least one example of this greatest period of Indian Art in the Exhibition, viz., the small bronze image of *Avalokitesvara* from Ceylon, belonging to Dr. Coomaraswamy's own collection. It is a very small statuette, some three inches high, of the *Bodhisattva*, seated on a stool, one leg resting on the ground, the gesture of the right hand indicating that he is preaching. The suppression of muscular details and the attenuation of the waist, indicating a physical frame unused to all grosser forms of enjoyment, and the tender grace, dignity and repose of the figure are typical of all that is best in the Art of the period.

(B)

The oldest bronzes of Nepal and Tibet on view in the Exhibition are a little later in date, and many of them are comparatively quite modern. For, we must remember that when Buddhism was finally extirpated in Bengal and Behar, through the wholesale massacres and and persecutions of Buddhist monks by the early Muhammadan invaders of Bengal, it found a refuge in the sheltered valleys of Nepal, and in the remoter highlands of Tibet, where it still counts numerous votaries. This is how images of the Buddha, the Bodhisattva-s and the Tara-s are still being made in these countries according to the old Indian traditions. It may interest our Bengali readers to learn that not only was the Buddhist faith first transplanted and firmly established on Tibetan soil through the efforts of *Bengali* missionaries like Atisha and Dharmapala during the rule of the Pala kings of Bengal and Behar, but that Tibetan religious art, painting as well as sculpture, inasmuch as it is derived from Nepalese traditions, bears the impress of a Bengali school of art, as will appear from the following passage from the *History of Buddhism* by Taranath, a Tibetan monk of the 16th century, quoted by Mr. Havell on p. 79 of his book on *Indian Sculpture and Painting*:—

"In the time of kings Devapala and Shrimant Sharmapala, there lived in Varendra (Northern Bengal) an exceedingly skilful artist named Dhiman, whose son was Bitpalo; both of these produced many works in cast metal, as well as sculptures and paintings which resembled the works of the Nagas. The father and son gave rise to distinct schools; as the son lived in Bengal, the *cast images* of the gods produced by their followers were usually called gods of *the Eastern style*, whatever might be the birthplace of their actual designers. In *painting*, the followers of the father were called the Eastern school; those of the son, as they were most numerous in Magadha, were called followers of the Madhyadesha school of painting. So, in Nepal, the earlier schools of art resembled the old western school; but in the course of time *a peculiar*

Nepalese school was formed which in painting and casting resembled rather the Eastern types."

Thus, what we see in the Nepalese and Tibetan images in the Exhibition is nothing but a continuation of the old art of Bengal, Bengal under the palmy days of the Pala kings.

VII

Of the Nepalese images, the most striking were (1) a standing figure of Maitreya, the future Buddha,—preaching, which was characterised by the same dignity of pose and restrained but expressive gesture as characterise the Ceylonese "Avalokitesvara" mentioned above; (2) a Buddhist Trimurti, being Avalokiteswara, Manjusri and Vajrapani combined in one image, corresponding to the Hindu Trimurti composed of Brahma, Vishnu and Siva; (3) a figure of Manjusri with a book in one hand, and a sword in another for dispelling the darkness of ignorance; and (4) an eight-handed Tara with a *vajra* in one hand. Among the Tibetan figures we noticed specially several *Tara*-s and *Padmapani*-s seated in the characteristic attitude of *yoga*, some blessing, some preaching, and some absorbed in contemplation. The ineffable tenderness and grace of expression and gesture in these images, and withal the impression of strength and firmness conveyed by the tension of the figure and limbs, give us an inkling of the moral and spiritual calibre of the people that conceived of their duty in this wise,—

"Strong without rage, without o'er-flowing full."

Coming to the specially Hindu images exhibited, we had some copper images of Ganesha and other Hindu deities, from Poona, some images of Radha-Krishna and others, most of them comparatively modern, and none very remarkable. There was, however, a metal statuette copied by the Victoria Technical Institute from an old bronze in the Madras Museum, representing Siva as *Nataraja* or the Lord of Dancers, the commonest form in which the Deity is worshipped in Southern India. The original is described by Mr. Havell as one of the finest extant works of Hindu sculpture. Siva is here represented as dancing in divine ecstasy over the prostrate body of Mayaluka or Mahamaya. He has four hands; one raised in the act of blessing, another bent downwards to dispel fear, a third shaking the *damaru* or hour-glass drum, and the fourth holding the fire of sacrifice. An *aureole* of fire surrounds the figure and forms its decorative setting. With this cosmic conception of the deity as rhythmical energy, creating and destroying in turn, in which we have reached one of the highest generalisations of Indian religious thought, we close our survey of the pre-Muhammadan phases of Indian Art as represented in this Exhibition.

DAWN MAGAZINE OFFICE, CALCUTTA. } RABINDRA NARAYAN GHOSH, M. A. *(Late of the Bengal National College)*

MARITIME ACTIVITY AND ENTERPRISE IN ANCIENT INDIA: INTERCOURSE AND TRADE BY SEA WITH CHINA.

I. Introductory

In the olden days of Indian history when great waves of Indian thought were propagated to countries outside India's borders, the ocean which washes India's shores for a thousand miles and more, formed an easy highway which enabled her sons to carry her civilisation and culture as also her abounding material produce and manufactures to the very door of every nation of the then known world—from China and Japan to Arabia and Egypt, converting the countries lining the whole coast from Pegu to the Yunnan (in China) as also the numerous islands in the Southern Seas into so many outlying Indian provinces. "Down to the days of the Mohammedan conquest went, by the ancient highways of the sea, the intrepid mariners of the Bengal Coast, founding their colonies in Ceylon, Java, and Sumatra, leaving Aryan blood to mingle with that of the sea-board races of Burmah and Siam, and binding Cathay (China) and India fast in mutual intercourse." ('*The Ideals of the East*' by Mr. Kakasu Okakura, pp. 1-2.) China is one of the countries with which India had opened communication and established commercial relations by sea from very old times carrying on a flourishing trade till the advent of the European nations in the oriental seas. And into China also had India poured in by the open door of the sea much of her culture and civilisation. For by the sea-route passed from India many of the great Buddhist missionaries who carried to China her religion and who by their self-sacrificing zeal and unwearied labour for centuries, not infrequently in the face of enormous opposition from the princes and people of China, propagated the principles and the literature of that religion amongst her millions. It was in Indian merchant vessels again that travelled many of those numerous Chinese pilgrims that flocked to India, studied for years in her Universities, resided in her monasteries, visited her holy places noting down, like the Chinese Buddhist pilgrim of the 7th century A. D., I-tsing, every minute peculiarity in the conduct of the Indian *sramanas* (monks), every detail of the rules of discipline as practised by them, and thus imbued with the Indian spirit and inspired by Indian ideals, spread this acquired Indian culture when back amongst their own people in their own land. This importation of Indian religion and culture into China has resulted in a deep Indianisation of Chinese life and ideals and its art and literature stand imbued to the present day with Indian ideas and thought. In the language of a distinguished German scholar well known for his Chinese scholarship and extensive know-

ledge of Chinese Buddhism "to the present day two-thirds of the whole Chinese Buddhist literature are translations of foreign (*i. e. Sanskrit)* works. Every popular Buddhist book is full of *Sanskrit phrases.* Many of the litanies which the priests read are *Sanskrit prayers* transliterated in Chinese characters, the prayers which exorcists among the common people recite, the charms and amulets they use, frequently contain *Sanskrit characters,*"* and to the present day the images of many of the Indian missionaries occupy a prominent place in the temples of China.

II. Pre-Buddhistic Intercourse by Sea with China

This high spiritual mission of India as well as the spirit of maritime enterprise and adventure stirring on the Indians of old to seek the economic welfare of their country by the extension of commerce in many lands, led them to maintain a continuous intercourse by sea with China from a very remote age down to quite recent times. There is evidence, both in Sanskrit literature as well as the annals of China, that this communication between the two countries was opened at a very remote ancient time, when, it seems, a part of China was colonised by Indians. "There is," remarks Sir Henry Yule, R. E., C.B., K.C.S.I. "in a part of the astronomical systems of the two nations the strongest implication of very ancient communication between them, so ancient as to have been forgotten even in the far-reaching annals of China" which reach to a period about three thousand years before the Christian era. (*Vide* p. xxxiv, 'Cathay and the Way thither' by Sir Henry Yule). In Sanskrit literature there are many references to China to the Chinese and to Chinese silk, camphor, steel, vermilion, etc., and in the Code of Manu itself we have the remarkable statement that the Chinese were degenerate Kshattriyas, being one of many Kshattriya tribes who had gradually sunk in the world to the condition of *Sudras* in consequence of the omission of the sacred rites, and of their not consulting Brahmanas. (*Vide* p. 412, "The Laws of Manu" by Georg Bühler).† With reference to this particular point a distinguished French scholar, M. Pauthier, makes the

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* *Vide* pp. 35 and 21, "Buddhism : its Historical, Theoretical and Popular Aspects"—by Dr. E. J. Eitel. Third Edition, Hongkong, 1884.

† Manu, ch. x, verses 43-44.

शनकैस्तु क्रियालोपादिमाः क्षत्रियजातयः ।
वृषलत्वं गता लोके ब्राह्मणादर्शनेन च ।
पौण्ड्रकाश्चौड्रद्रविडाः काम्बोजा यवनाः शकाः ।
पारदा पह्लवाश्चीनाः किराता दरदाः खशाः ॥

following observations in his edition of the 'Travels of Marco Polo' (p. 550), "the statement in the Laws of Manu is partially true and people from India passed into Shensi, the westernmost province of China, more than one thousand years before our era, and at that time formed a State named *Thsin*, the same word as China." (Quoted by Sir Henry Yule at p. xxxiv of his "Cathay and the Way thither.") It is natural to infer that a part at least of these ancient Kshattriya colonists passed by the sea, seeing that in the Vedic times the Hindus were well-acquainted with the navigation of the ocean and merchants are referred to as frequenting every part of the sea in the Rigveda (*vide* p. 16, "Indian Paleography" by J. G. Bühler and pages 46 and 47 of this magazine, new series, vol. v, March, 1909.).

III. Increased Intercourse by Sea with China from the commencement of the Christian era

Coming down to Buddhist times, there is very clear evidence in the Chinese records, the annals of the Imperial dynasties, the narratives of the Chinese pilgrims and the history of the numerous Indian Buddhist teachers—to show that from the beginning of the Christian era, Indian ships began to ply the Chinese waters in gradually increasing numbers. While it is a remarkable fact that the Chinese did not send out any ships to the Indian Ocean till many centuries later. In the *Journal of the Royal Asiatic Society* for 1895 (p, 525), we read—"The Indians and Persians most probably went to China by sea at the commencement of our era, and continued to do so for many centuries afterwards. * * The Chinese did not arrive in the Malay Archipelago before the fifth century, and they did not extend their voyages to India, Arabia and Persia till a century later."* It is a significant fact that at this time Buddhism secured the royal patronage in China and began to obtain a wide currency there and the sympathy and intimacy promoted by a community of religion naturally led to an increased mutual itercourse between India and China. Buddhism had found its entrance into China, perhaps during the life-time or shortly after the death of the great Buddhist Emperor of India, Asoka of the third century B.C., whose missionaries carried the faith of Buddha over about the whole of the then civilised world, "not only throughout and on the borders of his own wide empire, but in the distant regions of Western Asia, Eastern Europe, and Northern Africa." (*vide* p. 42, 'Asoka,' "by Vincent A. Smith, 2nd edition, 1909). "As early as 250 B. C., a

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* The writer of the article in J. R. A. S. from which we have quoted is a well-known authority Mr. George Phillips, a British Chinese scholar, the author of several books and numerous articles in matters relating to China.

number of eighteen Buddhist emissaries reached China, where they are held in reverence to the present day, their images occupying a conspicuous place in every larger temple." (*Vide* p. 21, "Buddhism" by Dr. E. J. Eitel). By some scholars this event is placed in 217 B. C. (1), while others hold (2) that Buddhism found its way into China in 221 B. C. However, Buddhism did not make much progress in China until the first century after Christ (A.D. 67) when in response to a mission from the Emperor of China two Indian Buddhist *Sramaṇas* (monks), Kashyapa Matanga and Gobharaṇa went there in possession of Buddha images and scriptures and commenced vigorously the work of preaching the laws of the Buddha and of translating the Buddhist religious texts into Chinese (3); from this time China entered into a state of spiritual pupilage or discipleship to India and intercouse by sea naturally underwent a corresponding increase.

IV. Maritime Trade with China: Some of its Special Features.

The volume of trade carried on by Indians with China by sea, whatever it might have been before this time, began to increase considerably from this time. Throughout the first and the second centuries after Christ (during A. D., 89-105 under the Chinese Emperor, Hoti and again in 158-9 under another Chinese Fmperor, Hiwanti), the Chinese annals record the arrival at the Chinese court of many embassies from Indian sovereigns bearing *merchandise* under the name of *tribute*, the trade with foriegn nations being a monopoly of the Court in China. Most of these so-called embassies passed by the sea and continued to be sent to China from very early times to the days of the great Mughals.† The peculiarity of these embassies was that they were not mere interchange of compliments between the respective sovereigns; nor were they always mere religious or diplomatic missions, but more often these so-called *embassies* with numerous so-called *ambassadors* and rich presents and so-called *tributes* represented trading expeditions, this being the recognised official form in which trade had to be conducted with China. It is necessary to possess a clear comprehension of this approved system of commercial intercourse with China to understand the full significance of the numerous "embassies" sent from India to China. The subject is very ably and fully discussed in the Journal of

(1) *Vide* p. 77, 'Buddhism as a Religion: Its Historical Development and its Present Conditions' by H. Hackmann, Lic. Theo., translated from the German, revised and enlarged by the author; London, 1910. See also, "Chinese Buddhism" by Rev. J. Edkins, D. D., p. 88.

(2) Mr. Herbert J. Allen, in the Journal of the Royal Asiatic Society, 1896, p. 223.

(3) Hackmann's 'Buddhism' p. 78 and Edkins' 'Chinese Buddhism,' pp. vii and 88.

the Royal Asiatic Society for 1896 (pp 64-66) by Dr. F. Hirth, Ph.D., a recognised authority in Chinese matters. Says he, "Foreign trade had for a long time been covered by the name, inseparable from the early foreign enterprise of Chinese Courts, of 'tribute.' The word 'tribute,' in Chinese, *Kung*, was nothing but a substitute for what might as well have been called "exchange of produce" or "trade," *the trade with foreign nations being a monopoly of the Court.* The latter would refuse to trade unless it was done under its own conditions, viz. the appearance of the offering of gifts as a sign of submission and admiration on the part of a distant monarch. In each case the full equivalent was paid for these offerings in the shape of counter-gifts presented to the so-called ambassadors by the Chinese Court. If these counter-gifts had not made it worth their while to submit to all the trouble and even humiliation imposed on the tribute-bearers, we should not see such a long list of distant nations recorded as regular tribute-countries, such as India, Persia, and Arabia, who had nothing to gain or to lose by the friendship of China. I am inclined to believe that, with exceptions of course, *these tribute-bearers were in reality nothing better than private merchants who purchased the counter-gifts of the Court under the pretext of bringing tribute in the name of some distant monarch.* The description and quantity of goods returned to such tribute-bearers as a reward for the submissive feelings expressed by them on behalf of their monarchs have in many cases been placed on record by the court historians, and if *measured by our present estimation of their value point to a trade as lucrative as any carried on under modern treaty regulations.* Such relations had existed between China and the neighbouring countries from the oldest times. * * The regularity with which these transactions took place led, of course, to the creation of court officers connected with their management." Thus we read that in the seventh century A. D. officers were appointed for the special purpose of receiving the ambassadors of the countries in the four directions of the compass, one for each, "whose duty it was to superintend the 'exchange of produce' besides the duties connected with the reception of the mission." This shows clearly enough that these early tribute-missions were 'mere pretexts for trade under court monopoly' (*ibid* p. 71), severe penalties being prescribed 'for clandestinely treating with a foreigner even to a very limited extent' (*Ibid* p. 70).

The views of Sir Emerson Tennent are also similar on this point. In his standard work on *Ceylon*, (p. 597, vol. I. Part V. chapter III.) in speaking of the numerous embassies from that country to China he observes, "Although all these embassies are recorded in the Chinese

chronicles as so many instances of acknowledged subjection, there is every reason to believe that the magniloquent terms in which they are described are by no means to be taken in a literal sense, and that the *offerings enumerated were merely in recognition of the privilege of commercial intercourse subsisting between the two nations;* but as the literati affect a lofty contempt for commerce, all allusion to trade is omitted; and beyond an incidental remark in some works of secondary importance, the literature of China observes a dignified silence on the subject." India at a very early period, volunteered this payment of tribute as a matter of speculation and even as late as the thirteenth century when the great Chinese Emperor Kublai Khan, (of Tartar descent) tired encourage to trade with foreign nations, it was only four Indian kingdoms and some states in the Archipelago that welcomed his envoys and responded to his proposals. (Yule's Cathay and the Way thither,' pp. lxxvi and lxxvii). The island of Ceylon which, to all intents and purposes, is to be considered as an integral part of India, also entered very early into this peculiar form with China. Sir Emerson Tennent says in his work on Ceylon above referred to that all the Chinese accounts, from the very earliest period attest a continued intercourse and an intimate familiarity between the people of the two countries, the explanation being found in the identity of their national worship. The interchange of courtesies between the two countries, he says, was eagerly encouraged by their respective sovereigns. "The emperors of China were accustomed to send ambassadors, both laymen and theologians, to obtain images and relics of Buddha, and to collect transcripts of the sacred books, which contained the exposition of his doctrines;—and the Kings of Ceylon despatched embassies in return, authorised to reciprocate these religious sympathies and do homage to the Imperial Majesty of China" (*vide* Tennent's *Ceylon*, vol. I. pp. 593-594.) or, in other words, *to carry on a trade with him.*

DAWN MAGAZINE OFFICE, CALCUTTA. } HARAN CHANDRA CHAKLADAR, M.A., *(Late of the Bengal National College)*

PROGRESS OF TECHNICAL EDUCATION IN NATIVE INDIAN STATES—PART III

(Continued from pp. 46-48 of March, 1910 number of this Journal)

I. Technical Education in Mysore State : Introductory

Like the State of Baroda of which we spoke at length in Part II* of this series, Mysore furnishes an example how some of our Native Indian States are alive to the question of providing technical

* *Vide* February and March, 1910 numbers.

education to the younger generation of their subjects,—such provision forming only a part of the longer policy of promoting the growth of indigenous arts and industries within the respective territories. The Mysore State has got no less than nineteen Industrial Schools, one Engineering School, one Agricultural School, two Commercial institutions, and two mixed schools for the deaf and the blind. Altogether about 1,000 students are being educated in these schools. From the nature of subjects taught in most of these institutions it appears that the curriculum has been so fixed as to stimulate the growth of home industries and to equip artizans with some practical knowledge of machines and machinery and the handling thereof. The standard of education imparted is not so high as in Baroda which boasts of one of the best equipped technical institutions in India, and from the nature of industrial subjects taught it would appear that, it is the middle-class people (and the artizan classes) that would feel attracted to these schools. The Engineering School at Mysore teaches, no doubt, the subject of Civil Engineering on a moderate scale, but for higher education in the several branches of Technical Arts and Industries, the State has to send up its students outside its own territories. Accordingly, the State has instituted a number of yearly scholar-ships for Mysore students pursuing higher technical studies in India or in countries outside her borders. As a preliminary step for the diffusion of technical knowledge among the masses and preparing the ground for secondary and higher Technical Education, the State has introduced a system of manual training known as the "Sloyd" system in the curricula of school studies, such training forming a part of general education. Lastly, the State has instituted Annual Industrial, Agricultural and Educational Exhibitions which seek to foster in various ways the industrial spirit and promote the growth of agricultural knowledge of the people. With these introductory remarks, we proceed to give in detail an account of the progress of Technical Education in the State of Mysore which is in many respects a Model Native Indian State.

II. Industrial Training and Industrial Schools

There were at the end of 1907, nineteen schools where mixed technical and Industrial training was given. The number of students in these schools reached the total figure of about 900, of which about 100 belonged to girls. The largest of these schools is the Government Industrial School at Mysore, which had at the end of 1907, so many as 240 students on the rolls, of whom 42 were the sons of the artizans. The school has classes for carpentry, pottery, rattan

work, smithery and drawing. Of the other schools, it should be mentioned that they have taken up subjects for teaching which have a direct bearing on local art industries and other industries of the State. Thus, the Government Industrial School at Channapatna was started with the express object of reviving the local industries of musical wire-making and lacquer work, for which the place has long been famous. In the opinion of the authorities of the institution, the lacquer works of Channapatna are the finest in India and the musical wires, one of the best specimens in the world. We have to note that successful students from the school have all been absorbed in private firms and have been earning their living honourably. A noteworthy feature about the business of these artizans is that most of them work on co-operative principles.

Similarly, the Industrial School at Melcote teaches a number of subjects, *viz.*, capentry, weaving (on Hand-looms and Fly-shuttle-looms, and including dyeing and printing), printing (Letter-press) book-binding, sewing, and embroidery, besides the making of fans and lacquer-work. We understand the school has given so much impetus to the local improved weaving industry, that the weavers have taken to the weaving of cloths with ornamental lace and silk work. Likewise, the Mahomedan Industrial School started at Bangalore in May 1908 has been teaching a number of Mahomedan young men the subjects of carpentry, carving, engraving and ivory-inlaying ; and the school is no doubt destined to open out new industrial careers for the youth of the Mahomedan community. Again, the Wesleyan Mission Workshops and Training School of Industries, started by the Wesleyan Mission, at Tumkur and receiving grant-in-aid from the Government has gone a long way to improve local industries and to turn out skilled workmen. The subjects the school at present teaches are carpentry, cabinet-making carving, rope-making, rattan-work and drawing. It is a noteworthy fact that most of the old students turned out from the Tumkur Training Institution have settled themelves in villages near about Tumkur, while others have migrated to different parts of the State following the calling or trade they were taught and many are teachers in other schools. Similarly also the remaining fifteen industrial schools in the State, have taken up one or more of the subjects of carpentry, smithery and the several branches of weaving, and contribute in no small measure to the in ustrial progress of the State.

Another point which we should like to bring out in this connection is the fact that the number of Aided Industrial Schools in the State is

larger than that of Government Industrial Schools. This is no doubt indicative of the appreciation by the people of the advantages of Industrial Education. The same fact is also strikingly brought out in connection with the following circumstance : In the town of Srinivasapura in the district of Kolar, there is an Anglo-vernacular school where the boys had been receiving general education up to the end of 1904. About the beginning of 1905 the local people felt the need of supplementing the literary education imparted in the local Anglo-Vernacular School by a course of technical training. The result was that in February of the year an industrial school was started especially for the boys of the Anglo-Vernacular school for whom the technical training classes were held between the hours 12 to 2 during the day. The subjects taught are carpentry and mat-weaving. No fees are charged for the training, the proceeds from the sale of manufactured articles forming the chief source of income to the school. This is one instance, but there is no doubt that this sort of popular undertaking backed, as always it is, by an indigenous Government, is destined to play a very important part in the industrial regeneration of the State.

III. **Agricultural Instruction**

There is no special school for agricultural instruction but the Normal School at Mysore with an agricultural farm attached provides training in practical agriculture for the students of the upper three classes of the school. The students of the Lower Secondary class attend to school-gardening, those of the Upper Secondary class to cultivation work and those of the Seventh Standard class preparing for the Upper Secondary Examination, to the field classes. There were at the and of 1907, 25 students engaged in school-gardening, 24, in crop-cultivation, and 20, in field work. The usual dry crops of the Mysore district, as well as the groundnut and cotton crops were grown in the farm and the students maintained cultivation books in which they recorded their work with the observations made by them. Their attention was particularly drawn to the proper conservation of cattle manure, the rotation of crops, the value of interculturing, the selection of seeds and other important matters of practical agriculture. It is expected that the practical knowledge acquired by the teachers will be of use both to their pupils and to the people of the villages. Besides the Normal School, where thorough practial training in agriculture is given, there are about a dozen Anglo-vernacular and village elementary schools with flower gardens attached, where practical elementary training in gardening is given. The imparting of instruction to *raiyats* (tenants) engaged in sericulture has also engaged

the attention of the Government and the scheme of utilizing the silk-farm started by Messrs. Tata in Bangalore as a practical centre of training for men engaged in the industry, if carried into effect, is likely to do a great deal in the direction.

Besides the efforts made by the State to provide agricultural education, the people themselves are taking a fair amount of interest in the matter. On this point the testimony of Official Reports is highly encouraging and convincing :—

"There has been a general awakening of the country as a whole in the matter of agricultural improvements, and interest is now taken in new methods of cultivation, and improved agricultural mechinery. Private individuals are coming forward freely to carry on agricultural experiments and to try new varieties of crops. Agricultural Associations have been started in some of the districts and are expected to serve as an agency for the systematic conduct of experiments and the collection of results."

IV. Manual Training in Mysore Schools : A Part of General Education

The most important and far-reaching departure made by the State since the year, 1907, in the system of education, was the development of the scheme for introducing manual training in the curricula of school studies. In 1906-07 Mr. H. J. Bhabha, the then Inspector-General of Education, was deputed to study the system as at work in Elementary and Higher Eelementary Schools in England and America. Upon his recommendation, Dr. Gustaf Larsson Principal, Sloyd Training School, Boston (U. S. A.) was brought down towards the close of 1907, and his services were engaged for six months to train teachers of High and Anglo-vernacular schools in the theory and practice of the kind of manual training called "Sloyd" as followed in Boston in America. A three years' course of "Sloyd" was arranged by Dr. Larsson for pupils of High and Anglo-vernacular schools, and some twenty teachers under his training were taken rapidly through the whole of this course and were also given special lessons in mechanical drawing, carving and turning. The progress made by the teachers was very satisfactory, and Dr. Larsson was of opinion that "he had never had a better set of teachers to train in his long experience of over twenty years and that the Indian teachers were superior to teachers of the same grade in America in intelligence, quickness of perception and manual dexterity"* "Up to August, 1908, the Sloyd" system was introduced in nine Government schools, and with the help of these trained teachers, it will be possible for the Government to introduce it gradually in other schools as part of general education.

* *Vide* p. 72 of *Mysore Administration Report, 1907-8.*

In the words of Dr. Gustaf Larsson, "Sloyd is tool work so arranged and put into practice as to stimulate and promote vigorous and intelligent self-activity for a purpose which the *worker* himself recognises as good. The visible or material results should in every respect represent the *worker's* own effort. The objects made should be such as can be readily appreciated by the *worker and should become his property*. Work-benches, tools and materials used should be, as far as possible, the product of the country rather than imported." The outfit of a "Sloyd" room costs a good deal, but the running expenses are very light. For a class of twenty pupils, the outfit consisting of the best benches and tools, will cost about Rs. 945, and the running expenses will be about Rs. 3 per child for the year.

Dr. Larsson makes a very wide distinction between "Sloyd" training and technical or industrial education. "Sloyd" training excludes the use of machinery as a labour-saving device, and consequently, there is no division of labour in the system ; while contrary is the case with technical training which takes advantage of machinery and other labour-saving appliances. Says Dr. Larsson, "Technical and Industrial Schools are needed to supply a training to the comparatively few boys who intend to specialise in a particular line of work or to make a livelihood in some particular trade ;" consequently, technical or industrial training has no place in a scheme of general education.

V. Annual Industrial and Agricultural Exhibitions : Their Educative Influence

One of the most important and successful means adopted by the State is the organisation of an Industrial and Agricultural Exhibition which was held last year from 18th to 31st October, and was quite successful as that of the year previous. The primary aim of the Exhibition was to give it an educative character, and no pains were spared to bring to the notice of the *raiyat*, the artisan and the manufacturer, who visited the Exhibition in large numbers, the use of the various articles, machinery, etc. on view at the Exhibition, and the processes of manufacture of various articles. A competition was held on the Exhibition grounds in ploughing and weaving, and the processes connected therewith. Further, lectures were delivered by competent persons both in English and Canarese, the vernacular language of the people, on subjects connected with industry, agriculture, health and sanitation, the value of agricultural machines and implements, their cost, construction, and repairs. The utility of the Exhibition and the advantages it affords to the people of the State are very well explained in the Report of the Exhibition for 1908, by the President of that Fxhibition, Mr. A. Rangaswami Ayengar, M. A., B. L., Revenue Commissioner of Mysore. We

read :—"The raiyats and artizans are just beginning to compare and appreciate the value of exhibits from various parts, and from an *educative* point of view the Exhibition has been a source of instruction and intelligent curiosity to them and also to our women and children. A growing demand has arisen on the part of our raiyats for the several varieties of seed grains, manures and implements exhibited here, and a wholesome spirit of emulation is very perceptible. Profiting by the past year's experience, the various sub-commissioners have been able to place on a better footing the ploughing and weaving competitions, the demonstration of machinery and implements and the staging of the textile fabrics. Last but not least, as the collection of merchandise and cattle from all parts are special adjuncts of large Hindu fairs calculated to furnish opportunities of gain for our traders and supply the needs of people attending the same, an Exhibition of this kind fits in well with our time-honoured and semi-religious Dasara festival. I feel therefore confident that, inspite of the sacrifices of time and resources entailed on the Government and the public, an annual Exhibition will be admitted to be essential as a medium of instruction to the community and a powerful agent for the promotion of agricultural and industrial prosperity of the State."

The exhibits consisted of :—I. **Agricultural Implements and Machinery,** such as water-lifts (worked both by hand and Power), oil-engines, paddy-husking machines, sugarcane mills, sugar-makiug machinery, chaff-cutters, ploughs with iron or steel made boards, harrows, cultivators, etc. II. **Agricultural Manufactures,** such as, fibres of cotton, silk, wool, cocoanut, plantain, pine-apple, etc.; vegetable dyes, manures, essential oils, etc. III. **Industrial machines** including textile machines, such as, silk-reeling machines, fibre-extracting machines, etc.; also various tools and instruments. IV. **Industrial Manufactures** including textile fabrics, metal works, carving, inlaid-work, etc. V. **Agricultural Products** (including Forest Poducts, such as, lac, gum, resins, tanning materials, medicinal plants, and roots, honey, beeswax, etc.)

Along with and in connection with the Industrial and Agricultural Exhibition spoken of above, a special Educational Exhibition also is held annually for the benefit of students and teachers and those interested in education. The first Educational Exhibition, of which Reports are available to us, was held from 18th to 24th October, 1907. There were a large collection of exhibits of art and hand-work from several schools in the State. Besides, there were free-hand drawings, brush-work designs, clay-models and manual training models presented by the London County Council and the Sloyd Training School, Boston, America. Lectures were delivered on educational subjects and demonstration classes were held in connection with the Exhibition, showing also the methods of teaching deaf-mutes and the blind, for whom there are two special schools in the city of Mysore.—*(To be concluded)*

PART II : TOPICS FOR DISCUSSION

INDIAN NATIONAL SELF-CONSCIOUSNESS AND INDIAN NATIONALITY : VIEWS OF DISTINGUISHED STUDENTS OF INDIAN CULTURE—III.

[*Continued from p. 16 of Part II of April, 1910, number.*]

VI.—Unity of Indian National Culture : Islam in India Set Up no Revolutionary Movement in the National Life—(A)

"The advent of Islam into India during the post-Sankaracharyan period cannot be regarded as a revolutionary invasion, inasmuch as *under the new power there was no loss of Asiatic modes.* It is a mistake to read the history of India at any time as the account of a struggle between Hindu and Mahomedan *thought*, though it is a mistake which is perhaps inseparable from the European conception of the influence of faith on politics. The intolerance of Mahomedanism has been grossly exaggerated by Christian observers, who seem curiously incompetent to grasp the secret of an Eastern attitude. This intolerance could never be compared with that of the Roman Church ; and it must be remembered that "the dog of an infidel" is an expression hurled as freely against Spaniard and Crusader, as ever against what Christians call a pagan. The talk about cow-killing can hardly be taken as sincere, since in that case, the arms of chivalrous Hindus would today be turned against a newer power. The wars which arose between contiguous populations of Hindus and Mahomedans must be regarded rather as those athletic contests between brothers and cousins which confer individuality than as conquests on the one side or the other. The victor after victory attempts neither to exclude his rival's creed from office, nor to create invidious distinctions. 'The great bankers and nobles of Bengal remained Hindu under the rule of the Nawabs, as naturally as the Mussalman maintained his faith in the shadow of a Hindu throne.' (Torrens' *Empire in Asia*). Over and over again in the political world, have the armies of Delhi and the Nawabs been led to victory by Hindu generals ; and in every Native State to this day will be found positions of responsibility and power assigned to men whose creed is that which the sovereign's is not."*

"In more recent times, the Hindus and Mahomedans have made common cause. During the Indian Mutiny, the rebel Hindu sepoy fought not for a Hindu Raja, but for the Moslem King of Delhi. Also Mahomedans fought for the Hindu leader, Nana Sahib, against the British. * * It is not generally known that as early as the tenth century A. D., under Sabaktagin, the father of the great iconoclast, Mahmud of Ghazni, two Hindu Generals commanded the Ghazni army, General Sunder at Herat and General Tilak at Merv, the two great strongholds of Islam in Central Asia. The Mahomedan historian Baihaki, in his well-known work, *Tarikh-us-Sabaktagin*, thus describes the appointment of a Hindu General in the Ghazni army :— 'Shah Masnd granted Tilak a gold-embroidered robe and hung a jewelled necklace of gold round his neck. Kettle-drums were beaten at his quarters,

* Sister Nivedita's *Web of Indian Life*—CHAPTER IX.

according to the customs of the Hindu Chiefs, and banners with gilded tops were granted * * . Very high positions did the Hindus occupy in the Military Department under the Mughal Government. Man Singh, a Hindu, was under Akbar not only Governor of Bengal, but was also Governor of Moslem Kabul. * * Raja Bijai Mall was in the military service of Nawab Shaja-ud-Daulah Sup Karan Bundela, the Rajput, was an officer in charge of 2,500 troops in the service of Emperor Alamgir. His son, Dalpat Rai succeeded him in military command. Rai Singh held the rank of Panj-Hazari or officer in charge of 5,000 troops under Jahangir, Raja Bihari Mal and Raja Bhagwan Das held high ranks in the Delhi Imperial Army. Man Khan, the brother of Udham Bai, was raised to the rank of Commander, in charge of 6,000 troops (Shash Hazari), with the title of Motaquid ud-Daulah. The Mughal Government really was a Mughal-Hindu Government. The friendly feeling between the Hindu and the Mahomedan, though occasionally marred, as it has been, between Shiah and Sunni sections of Mahomedans, has stood the test of time." *

VII. Unity of Indian National Culture: Islam in India Set Up No Revolutionary Movement in the National Life—(B)

"We have seen, then, that it is certainly a mistake to read the history of India at any time as the account of a struggle between Hindu and Mahomedan thought. Asiatic among Asiatics,—there was no wide gap between Mussulman conquerors and Hindu conquered. New arts of luxury were introduced, but the *general economic system remained undisturbed.* India received a more centralised government than had been possible since the Asokan Empire, but no new forces came into operation tending to reduce her own children to the position of agricultural serfs or tenants." (chap. ix, *Web of Indian Life*). "The Afghan and Mughal rulers did not disturb the internal administrative arrangements; it did not interfere with the people and their constituted authorities." (R. C. Dutt) Sir H. Maine in his *Ancient Law* remarks:—'The most beneficent system of government in India have always been those which have recognised the village community as the basis of administration.' "With this system of self-government, the Mussulman rulers and governors did not interfere. The people were left to themselves in the full enjoyment of local self-government and they managed their own affairs. Outside Bengal, the people lived in village groups, each village being an organised unit, and, as it were a little republic by itself. In Bengal, the agricultural classes lived under the hereditary *Zemindars*". In the language of R. C. Dutt, "the village community system protected the people from much harassment by officials; and hereditary *Zemindars* and *Jagirdars* stood between their subjects and the ruling power. (Also) wise and strong rulers like Akbar and Shah Jahan restrained the *Subadars* (governors) and high officials." Thus, in the language

* S. M. Mitra's article entitled *Moslem-Hindu Entente-Cordiale* published in the Asiatic Quarterly Review.

of Sister Nivedita already quoted, "the advent of Islam into India was no revolutionary invasion; and no new forces came into operation tending to reduce the Indian peasantry to the condition of agricultural serfs or tenants." Thus, contrasting India under Afghan rule for three centuries and Europe during the Feudal Age we note, as pointed out by R. C. Dutt, that "the wars of India were less harassing and caused less misery to the people than the wars which desolated, every country in Europe (during the Feudal era). The oppression of Mussulman governors and *Jagirdars* was less hurtful to the industries and agriculture of India than the oppression of barons and feudal chiefs, who dwelt in their castles and robbed villages and towns. Trade and manufactures flourished in India as they flourished nowhere in Europe except in Italy and Netherlands; and the religious reforms and intellectual movement among the people of India were carried on more peacefully and with less persecution and cruel repression than in Europe" † Thus, we learn from the accounts of distinguished European travellers that visited India during Mahomedan rule, that trade and manufactures flourished in India and that Indian manufactures filled the markets of Europe and the products of Indian loom were valued all over Europe. "We have a glowing account," writes Mr. R. C. Dutt, "of the industry of the agricultural population and skill and ingenuity of the manufactures which triumphed over every obstacle, which covered India with large, prosperous and flourishing towns and which supplied the markets of half the civilised globe with her silk and cotton fabrics" † Thus, from every point of view it is clear that notwithstanding the wars and campaigns of the Mahomedan period of Indian history, the general economic system remained intact and the unity of *Indian National Economic Life* was in no way undermined or violently disturbed by the introduction of any new disintegrating force through the political ascendency of Islam in India. This aspect of the problem of Indian Nationalism in the past is ordinarily forgotten, the aspect, namely, which lays due emphasis on the continuity of National Life, i.e., the life lived by the people during the period of Mahomedan rule in India; but on the contrary, the dynastic fortunes of Mahomedan rulers with their attendant wars of conquest *etc.*, are allowed to fill the foreground and destroy, distort, or colour the truth of the whole picture.

PRESENT SYSTEM OF EDUCATION IN ITS RELATION TO NATIONAL CULTURE: VIEWS OF Mr. E.B. HAVELL

I

"*Education*, in the common acceptance of the word, is taken to be synonymous with school-teaching. In all sound systems of education, national culture,—the traditions of national life and thought—must harmonise entirely with the school and university teaching, which should only be complementary or supplementary of the other. The fault of the Anglo-Indian education system,—the heinous and completely damning fault which has not been removed by recent attempts at reform,—is that instead of harmonising with, and supplementing national culture, it is completely antagonistic to it, and destructive of it. The system which (as Sir George Birdwood lately said) 'has destroyed in Indians the love of their own literature, the quickening soul of a people, and their delight in their own arts, and worst of all, their repose in their own tradi-

† R. C. Dutt's *The Civilisation of India*, (Temple Primer) p. 129; pp. 99-100.

tional and national religions,—that educational system has disgusted them with their own houses, their parents, their sisters, their very wives, and brought discontent into every family, so far as its baneful influences have reached.' This system, whether you call it *National* or whether you call it Anglo-Indian, is hopelessly and irrevocably condemned both in Europe and in India. This system by its antagonism to national traditions, is absolutely fatal to the national aspirations of Indians; for, even, were an Indian Governor-General installed at Simla, and Indian Parliaments opened at Madras, Calcutta, Bombay and Lahore, Indians by the loss of their national culture, would still be as much subject to Europe as they are now; for the intellectual pivot of the world would be, even more than it is now, fixed in the Western hemisphere. Intellect is and always will be, the ruling force in the world. You will never achieve political independence by Europeanising your intellects; you will fasten only still more firmly the bonds of your political subjection."

II

"The power of Indian thought has not been extinguished by the Europeanisation of the East; it has been for centuries imperceptibly leavening the materialistic science and philosophy of the West, so that Western teachers are now beginning to teach Indians what India has taught them. Schools and Colleges do not create ideals; they are created by the ideals. *When Indians begin to think Indianly, the Schools and Colleges will be Indian.* The intellectual decadence of India in the last few centuries has been greatly due to the neglect of the imaginative and creative faculties. No amount of *critical* acumen will regenerate India so long as the *creative functions* remain undeveloped in the most intellectual classes of the community. The whole direction of modern Western education has been, until quite recently, towards the development of the analytical or critical powers of the intellect, giving to the synthetic or the creative powers a subsidiary or subordinate, instead of the highest place. The entire absorption of the highest intellect of the nation in the intricacies of Sanskrit grammar, and in the study of Sanskrit texts has developed the *critical* powers of the mind, but not the constructive and imaginative functions. It has been little gain for India that her attention has now been diverted from Sanskrit grammar to English grammar and from Sanskrit to English books. What India really requires is the enlargement of the sphere of her highest intellectual activity, so that it may embrace all forms of *creative* energy, as it did in the greatest period of her history. Anglo-Indian educational reformers have lately endeavoured to apply a remedy for the excessive bookishness of their system by introducing modern theoretical and experimental science into the school and college curricula. The theoretical part of this teaching only substitutes one book for another. The practical side gives a useful relief from book-work, but as an intellectual exercise it is a mere repetition of *the literary* course; instead of analysing words and phrases, they are analysing gases, liquids, minerals and vegetable forms. It is grammar and syntax over again in a concrete form. The new reformed system, upon which so much discussion has taken place, is only perpetuating the vice of the old, in that it left the synthetical or the creative thought-centres half-developed or undeveloped. Indian National Education must be based upon the consideration of Indian national needs which urgently demand a more perfect and complete development of all the nerve-centres in Indian youth than that which is given to them now by the Anglo-Indian and British pedagogic system. The nerve-centres which control action must be developed as well as those which control the assimilative and reflective or critical functions of the brain. There is as much evil in over-literacy as there is in illiteracy, though the census statistics only take note of the latter. Indian education is now defective from excess of literacy, that is from the excess of development of the critical as distinguished from the creative, synthetic or the artistic faculties.

PART III: INDIAN EDUCATIONAL AND ALLIED MOVEMENTS

THE NEW MOVEMENT IN FAVOUR OF AN INDIGENOUS INDIAN NATIONALISM: SOME RECENT PUBLICATIONS

It is one of the signs of the times that some of the most notable books written on Indian questions during recent years approach the question of Indian regeneration in Art, Industry, and Education from the standpoint of the ideals and methods pursued in India throughout her great and glorious past. Not to speak of such big standard works as Mr. Havell's Indian Sculpture and Painting and Dr. A. K. Coomaraswamy's Mediæval Sinhalese Art, which, in spite of their supreme value and importance for every Indian Swadeshist, will not, on account of their great price, be ordinarily accessible to most of our readers, we have several brochures and pamphlets written by the same authors, and also one from the pen of the distinguished Bengali artist, Sj. Abanindra Nath Tagore,—which ought to be read, studied and digested by all who cherish in their hearts the desire to serve India. We refer to (1) *Essays on Indian Art, Industry and Education* by E. B. Havell Esq., (late Principal, Government School of Art; author also of "Benares: The Sacred City," and "A Hand-book to Agra and the Taj," etc.); published by G. A. Natesan and Co., Madras (Price Re. 1-4). (2) *Ths Indian Craftsman* by Dr. A. K. Coomaraswamy, D.SC. (London); published by Probsthain and Co., London (Price 2*s.* 6 *d.*). (3) *The Message of the East* by Dr. A. K. Coomaraswamy, D. SC.; published by Ganesh and Co., Madras, (Price 4as.); (4) *Bharata Silpa* (भारतशिल्प), a Bengali work by Sj. Abanindra Nath Tagore, Vice-Principal, Government School of Art, Calcutta, and Vice-President, Indian Society of Oriental Art; published by the Hitabadi Library, Calcutta, (Price 8 as.).

All these books and pamphlets represent a school of thought that is destined to play a leading and important part among the forces that go to make up the composite structure of Indian Nationalism. In these days of strife and struggle the national mind is a little too apt to be swayed away by the mechanical and materialistic ideals of success and prosperity as represented by the modern 'progressive' nations of the West, and to ignore or belittle the elements of real greatness that were embodied in the varied and organised life of our own historic past and handed down from generation to generation through thousands of years. Thus, our own Religion, Philosophy, Literature Art, Music, and lastly, Hindu Society, which furnishes hints and solutions to modern Western thinkers on social questions of vital import—indeed, the whole of our Past seems to have no meaning to the modern Indian 'educated' ear. Now, it is the message of these Indian ideals and Indian methods, particularly in the fields of Art, Industry and Education that these writings to which we have referred, writings from the pen of most competent authorities, seek to expound and deliver to us. And the most

valuable contribution which they render to the current thought of the time is their recognition of the very important part that Indian Art has played and is destined to play in the life of the Indian people, an Art that in its highest phases sought to embody the highest religious ideals of the race, and its decorative and industrial aspects, was an expression of the sense of joy and worship that pervaded the whole of life. But such art, as the authors have reiterated again and again in their writings, pre-supposes a social arrangement in which the independence of the craftsman is assured, an arrangement for instance, such as still exists with us, but is seriously threatened by the encroachment of modern industrial methods. It is all the more necessary, therefore, in these days when big factories and large capitalistic undertakings, loom so largely before the imagination of educated Indians, that the other side of the picture should also be carefully studied before we rush headlong into an experiment on which so much appears to be at stake; and we can think of no better preparation for such a study than the books under notice, coming as they do from the pens of some of our present-day, accepted authorities on the subject.

MOVEMENT FOR EDUCATION OF THE DEPRESSED CLASSES AND OF THE MASSES GENERALLY—V

(Continued from pp. 38-41 of the April, 1910 number)

I. Beginnings of Work in Bengal *(concluded)*

The Malda District Council of National Education

We explained in our last in some detail the useful work that the Faridpore District Association has been doing by way of providing education for the depressed classes such as the Namasudras and the poorer sections of the Mahomedan community—both of whom are the mainstay of the agricultural population of the district. A similar national organisation, but devoted exclusively to the cause of education, is the *Malda Jateeya Siksha Samiti* or the Malda District Council of National Education. The Samiti was started in June, 1907, with the following among the more important objects: (1) To promote mass education by starting or helping in the starting of Primary Schools (day and night) in every village within the district; (2) to make Primary education free as far as practicable; (3) to make provision for holding public examinations in the district town of Malda for rural students; (4) to establish small People's Libraries at places for the diffusion of knowledge among the people; (5) to publish and distribute books or periodicals bearing on education; (6) to improve popular local literature as embodied in the popular songs and lyrics, such as the *Songs of Gumbhira*, *Songs of Vishahari*, etc., by engaging special students for the same; and (7) to improve time-honoured *tols*, *muktabs*, etc. to suit modern requirements.

The Malda District Council of National Education is a thoroughly representative body, 45 strong. It is generally the case with our district public organisations that most of their members come from the district town and

consist of vakils, mukteers, and other professional men. But the constitution of the Malda Council is quite different. More than two-thirds of its members are representatives from rural areas, and among them are merchants, doctors, managers of estates, and other influential and educated gentlemen; while the rest comes from the district town and consists, as usual, of vakils, mukteers, doctors and others. The Mahomedan element is also represented, and one of the Vice-Presidents of the Council is a Mahomedan gentleman showing an active sympathy with the organisation. The Council is fortunate enough in securing the services of a number of self-sacrificing and active workers, including both younger and older men, led by the worthy Secretary, Sj. Bepin Behari Ghosh, B.L., of the Malda town.

II

It appears from the first Annual Report of the Council, that up to June, 1908, it opened eight schools in all. Of these, three were Primary schools (one Day and two Night schools), three Middle Vernacular schools, and two High Schools. Of the two High schools one is located in the district town itself and the other in the rural area. The number of students on the rolls in all these schools at the end of the first year reached the total of 748, and it has increased considerably since then. Now we come to the class of students who are being educated in the schools under the Council. About half the population of the district of Malda consists of Mahomedans, whose number is about four lakhs and a quarter. But the proportion of Mahomedan students in the schools under the Council is very small and this is, we presume, due to the general apathy of the Mahomedans for education. Again, among the Hindu population of the district which forms the second half of the total population, the number of the depressed class people such as the Namasudras is very small; the masses consisting mostly of *Kaivartas*, *Pundras*, *Kshatris*, *Mahishyas*, *Sadgopas*, etc., who fill an inferior place in Hindu caste system. It is these classes of people that are being more benefited by the schools under the Malda Council. Thus, the rural school at Dharampur is mostly attended by *Pundari* students, that at Kaligram, by *Teli* students, that at Kutubpur, by *Kansabanic* students, and so on. In almost every school under the Malda Council, provision has been made to give the students some sort of technical and industrial training side by side with general education. Physical and moral training have also been made a part and parcel of the curriculum. As part of their moral training, the students are required to do small acts of sacrifice and of charity like collecting *Musti-Bhiksha* for local public purposes, attending the sick and the aged, etc.

III

Now we come to the methods adopted by the Malda Council to spread education in the district. The first step taken by the Council was to send preachers to different villages. These preachers visited a number of places and held discourses with the people on the subject of education with special refer-

ence to the benefits accruing therefrom. Generally, they found no necessity of convening big meetings for the purpose, but went from house to house and sometimes held *Baithaks* or informal gatherings in a village tradesman's house. Before starting or helping in the starting of a school in a rural area, a preacher would generally take the following preliminary steps: (1) He would prepare a list of names of every householder and of his boys of the school-going age. (2) He would request every house-holder to set apart a handful of rice every morning and every evening from the rice doled out for preparing the dinner and the supper of the family. (3) He would exhort the boys and young men to look after their health and help them in organising clubs of physical culture. When, after these steps had been taken and the people evinced some enthusiasm and public opinion in favour of popular education became strong, a school was started. It is not the practice of the Malda Council to make any money-grants to its schools, but it would help them in organising funds from local sources; for the Report of the Council informs us that systematic and continuous *local self-help for local needs through voluntary self-taxation* is the guiding principle of the activities of the Council for the furtherance of education. Now, it is a truism that growth which is from within is slow; and it is therefore that the number of schools started by the Malda District Council of National Education is not so large. But we may hope that the method of work the Council has adopted for the spread of popular education will repay its efforts amply in maturity of time.

IV

Before concluding this part of the article, we have to observe that besides the Primary schools in the districts of Backergunge, Faridpur and Malda, of which we have already spoken, there are some thirty-four Primary schools in the other districts of United Bengal working along the lines laid down by the National Council of Education, Bengal and some of them receiving grant-in-aid from the same Council during 1908. Sixteen of these schools were started in 1907 and the rest, in 1908. Now, among the districts in which these schools are to be found, the place of honour must be given to the District of *Tipperah*, which boasts of eleven of these schools, distributed in the villages whose names follow: Subhapur, Charua, Digandi, Supur, Kalamuria, Raniara, Mulagram, Chaibapara, Gokarna, Maital, and Kaitala. Next comes the District of *Mymensingh* with four such schools located in the villages, Yasodal, Abdullapur, Deerghabhumi and Varnigram. Then comes *Jessore* District, which contains three such schools in the villages, Mathurapur, Jagadal and Palasbari. Then come the districts of Dacca, Noakhali, Bogra, Pabna and Hugli each of which has got two such schools, located in the following places in order: Nayasankar and Purbadi; Charachandi and Darpanagar; Jaleswartitala and Kutnar; Baghmara and Barapangami; and Muthadanga and Sahanpur. Lastly, each of the districts of Rangpore, Dinajpur, Nadia, Midnapore, Howrah, Khulna and Chittagong has got one school located respectively in the following villages: Bhawabari, Isabpur, Dhusundu, Balighat, Birampur, Raruli and Dum Dum.

From such statistics about the above-mentioned thirty-four schools as we have been able to obtain, we are in a position to state that over 1,600 students in the aggregate belonging to the masses including the depressed classes, were at the end of 1908 receiving instruction in these schools, and that on an average some forty-eight students were taught in a single school. It now only remains to add that these village schools were of recent growth being the work more of individual efforts as distinguished from organised public efforts.

NATIONAL EDUCATION MOVEMENT: A NOTEWORTHY PUBLICATION

We have to note with very great pleasure the publication of a book of about 140 pages (Crown 8 Vo.) entitled **Indian National Education in Two Parts** by Messrs. B. Pattabhisitaramayya, B. A., M. B. C. M., and K. Hanumantha Rao, M. A. B. L., two eminent educationists of the Madras Presidency, who are connected with the National College at Masulipatam which goes by the name of the *Andhra Jatheeya Kala Sala*. The book is very moderately priced at eight annas per coppy and could be had of the "Kistna Swadeshi Press, Masulipatam." Both Parts of the book are very well written, and are the results of cosiderable thought and investigation. We beg, however, to draw the special attention of our readers to Part II, which deals with "The Training of the Emotions in a System of National Education." A book like this ought to be in the hands of every educationist in India and we have not the slightest doubt would be read with profit.

STUDENTS' COLUMN

TEMPLES OF TRAVANCORE

I. General Introduction

Before giving a detailed description of each undividual temple of Travancore, it will not be out of place here to give, in general, an account which will hold good for all of her temples. These temples owe their origin to those pious Hindus who laid their foundation stones and set apart a major portion of their landed properties for their maintenance. Almost every pious wealthy man of those days used to build a temple at his own expense and entrust any property he could spare for it into the hands of some trustworthy member of a respectable family who was accordingly bound to meet all necessary expenses in connection with the temple. Thus each temple owned a *founder*; and a *trustee* having the property set apart by the founder, under his control. This was the origin of those magnificent temples, the seats of holiness, you will find and admire nowadays, if you go on a short tour to the 'Model State' of Travancore.

These temples gradually and naturally became rich by gifts, with the help of the orthodox population of those days. When some member of a Hindu family was attacked by any disease or when the family was in some kind of difficulty, they offered prayers to gods and goddesses and promissed to make an offering to them on recovery or on being relieved of the difficulty; and when

such recovery took place, as usually happened, they never failed to fulfil the promised gift. In this way, in addition to its landed property every temple had a fund collected in a natural, automatic manner, without the trustee having to undergo any personal difficulty.

During the reign of one of our Maharajas the temples of Travancore grew so rich and even also not properly managed, that His Government could not but interfere with their management and to bring them under direct Government control. And this they did with a good object in view, to wit, that of bettering the temples and spending in good ways the produce of their properties which were generally paddyfields. They succeeded in their object and we, the Travancoreans of today, are eye-witnesses to that. The need for the new Department thus arose on which would devolve the duty to manage the affairs of the temples and keep their account. To answer this requirement, a new Department under the name of Devaswam (Deva-god; swam-property) Department was created, according to which an accountant was appointed to each of the annexed temples, whose duty was to manage the affairs of his temple, and to send monthly returns of receipts and payments to the Head Office at Trivandrum. This system of management with some modifications is the system of management which exists to-day. One great blunder the Government of Travancore has committed, however, is that the Devaswam officials are each paid only some Rs. 3 or 4, per mensem, with the result that corruption is ripe among them. The Government ought to raise their pay in order to take away all inducement to corruption. As it is, such nominal remuneration can have but one effect as pointed out above.

These temples have progressed very much during the years that they have come under Government control. The small and inconvenient temples have been replaced by huge ones with big high compounds and other artificial work; large tanks have been dug; to some of the temples, towers have been added whose magnificence indeed reveals to us the skilled efficiency of the Travancorean architects; occasional festivals called *utsavams* have been introduced; jewels of great value and structures of horses, bulls, miniature Mt. Kailases (कैलास) have been gifted to the gods. Thus, if I am to quote detailed instances, the space at my command will hardly be sufficient. What is more noteworthy and has caused the name of our Maharaja to be cherished by a large population of Travancore is that most of His temples are always ready to feed any number of Brahmin travellers every morning and evening. Taking all these things into consideration, it will be no expression of exaggeration to say that His Highness the Maharaja is called Annadhatha (अन्नदाता) or Giver of food, His country is called Dharma Rajyam (धर्मराज्यम्) or the Land of Charity, and His household Divinity is Charity.

L. S. P.

MY TRIP TO HARDWAR: EIGHTH ANNIVERSARY OF THE GURUKUL ACADEMY

I left Allahabad with a friend of mine for Hardwar on the 25th of March 1910. From Luksar I met a number of persons going to Hardwar to witness the Eighth Anniversary of the Gurukula Academy. The kind and courteous treatment of my fellow-passengers shortened the journey. The next day we got down at 3-22 A. M. at Hardwar station where a number of Gurukul *sevaks* put our baggage in "Bail-garies." In about 45 minutes we reached Kankhal where we saw the old stately buildings: temples and Dharmsalas of the old type. Shortly afterwards the roar of the Ganga was heard and we found ourselves on the Ganga soil. No sooner did the day dawn than we reached the Gurukula Bhumi.

After an hour and a half the proceedings began: *Havan* and prayer having been performed, Pandit Ram-Bhuj Datt Chaudhri was elected President of the Conference "to consider the practical means to elevate the depressed classes." Six resolutions pertaining to education, establishment of schools for the depressed classes and religious *prachar* (preaching) among them were passed. The President delivered a very eloquent and touching speech explaining the condition of the depressed classes of to-day. On the question of the decrease of Hindu population he remarked, quoting Sir Herbert Risley's view, that "it is due to the conversion of the so-called "untouchables" of the Hindus to Christianity and Mohamedanism. Concluding his address the President eloquently pleaded that if this state of things were continued for a century to come, the Hindu nation would be totally extinguished and that it was high time that some measures were adopted to better the social, religious and educational condition of the "untouchables" giving them scientific, technical and literary education. The Conference ended at 12-30 P. M.

There were many *Bhajniks* (Hymn-singers) of whom Mahashai Previn Singhji and Mahashai Brij Lall of Lahore were particularly noticeable. Their Bhajans had an electric influence which thrilled the hearts of men and women present.

Swami Tulsi Ramji, Pt. Arya Muniji, Professor, D. A. V. College, Lahore, Swami Harprasadji and Swami Satya Nandji were the principal speakers of the day.

All the speeches were masterly and eloquent: Pt. Arya Muniji's lecture was a masterpiece—an appeal to the Arya Samajists to stick to the principles laid down by Maharshi Dayanand Saraswati, the renowned founder of the Arya Samaj, and to prove themselves Aryas in thought and in action.

Swami Har Prasadji discussed a very difficult subject—difference between the Eastern and Western Schools of Philosophy—in a very simple way so as to be easily comprehensible even by the illiterate.

Now the time was drawing of Goulam Hyder Khan's Shuddhi (शुद्धि) or the Purification ceremony leading to his admission into the fold of the Arya Samaj. And the Governor of the Gurukula was accordingly compelled to postpone Swami

Satya Nandji's lecture for the night. On the bank of the Ganges appeared Mr. Khan with two other Muslim friends. People crowded in thousands to witness the *shuddhi* ceremony. After being shaved Mr. Khan, no doubt, looked like a Brahman pandit with a *dhoti* wrapped round his body. After M. Previn Singhji's pathetic *Bhajan* (hymn-singing) on the Shuddhi movement and a short Dadra, the *Havan* began with Vedic hymns from all sides. The flowing Ganges, the moonlight and the chanting of the Vedic mantras added charm to the scene. Pandit Bhoj Datt-ji, to whom this movement owes its success, gave *janwa* (sacred string) to Mr. Khan and his two companions; Mr. Khan being now named Pandit Sat Deva, and one of the two comrades was named Paras Ram and the other was given an Arya name, which I forget. Being born of a Saiyad family and being a man of education and culture Pandit Sat Devaji really deserved the *padavi* (dignity) of a Brahman. All the three persons briefly described the circumstances which led them to accept the Vedic Dharma. Then followed a brief report of the doings of the Shuddhi Sabha which mentioned the remarkable fact that about thirty thousand Muslims and Christians had accepted the Vedic Dharma during the space of the last five years. It was next announced that Pundit Sat Deva (Mr. Khan) had been a professor of Arabic and Persian for some ten or twelve years at the Baghdad University and that latterly he had been a teacher as well as an inspector of Islamia Schools in Bhopal and the Bombay Presidency. He is an acknowledged Arabic and Persian scholar. He has challenged any Muhammadan to discuss with him points on the Musalman Religion, not in English nor Urdu, but in pure Arabic and Persian.

III

In the morning of the 27th, Havan and prayer were performed and Bhajans (hymns) were sung. Swami Akhila-Nand-ji, a well-known Sanskrit scholar, delivered a very eloquent lecture on the duties of the Aryas. With a profusion of quotations from the Vedas and Sastras he asked the people to perform their daily duties, viz.,—Sandhya, Havan and Yajna, without fail. As regards charity, the speaker deplored the present Hindu custom. The *Pranali* (प्रणाली) of charity, as the speaker said, must be directed along right paths.

Then came a very interesting speech from Shrimati Gargi Devi, the well-known speaker of the Arya Samaj who kept the audience spell-bound for about two hours and a half, her main subject being "Female Education." After an appeal from two women for a Gurukul also for girls, the proceedings came to a close.

The appeal for the Gurukula by Mahatma Munshi Ram-ji met with success. No less than Rs. 87,000 (inculding an endowment of property) were collected on the spot.

The next morning *Vedarambha Sanskar* of newly admitted Brahmacharies was performed, Mahashai Kedar Nath-ji, a life member of the Gurukul Staff, being the Achari.

The first day's proceedings are here omitted, since the undersigned could not reach Hardwar on the 23rd. But he has been informed that Brahmachari Harishchandra's paper on "Sanskrit Literature" at the symposium of the learned was a grand success, which clearly showed what a vast amount of Sanskrit knowledge the Brahmacharies acquire at the Gurukul.

We then returned to the city of Hardwar where we enjoyed the beautiful scenery of the Ganges from the Ganga Ghat.

NARANARAYAN PRASAD MATHUR
Allahabad,

14. 4. 10

Question: How can **Indian Students** increase their **Love of Country?**
Answer: This can be done by—
i. Increasing their knowledge of Indians and of Indian Civilisation, esp. Hindu and Islamic,
ii. Working together for something useful to their district, town or village,
iii. Supporting indigenous industries and enterprises, even at a sacrifice,
iv. Supporting Indian Educational and Allied Movements which aim primarily at fostering the unselfish instincts and developing the constructive faculties of the Indian mind.

THE DAWN — AND — DAWN SOCIETY'S MAGAZINE

एकरूपेण ह्यवस्थितो योऽर्थः स परमार्थः ।

That which is ever-permanent in one mode of Being is the TRUTH.—Sankara

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PART I: INDIANA

IN MEMORIAM.

(November 9, 1841—May 6, 1910.)

In our opinion the best way in which we can offer our tribute to the memory of His late Majesty, Edward VII, would be by reproducing the following verses, which as Reuter informs us, was a favourite hymn with His late Majesty. It is so instinct with Hindu religious feeling, although cast in the Christian mould, that it appeals readily to the ingrained devotional side of the Hindu nature. At the same time, there can be no question that the deep pathos underlying the verses and the high-toned religious feeling pervading every line of them would strike the innermost chord in every Indian heart. The Hindus, notwithstanding the process of denationalisation that they are undergoing, still believe that a Sovereign is no mere secular institution and the essence of their loyalty consequently rests on no mere secular basis. The idea of Divine Government on Earth is still, with the vast majority of them, not a remnant of a bygone age, but constitutes an essential part of their creed. This creed is never formulated by them in words for formal expression, but nevertheless touches the very roots of a Hindu's being. Anything, therefore, that recalls to the mind of the Hindu the essential, religious character of a Sovereign cannot but appeal with a double force to his deepest instincts. The following verses record in no uncertain manner a depth and volume of religious feeling that properly falls in with the character of a Sovereign; and according to the Hindu view of the matter, it is in the natural fitness of things that the hymn should have been the favourite hymn of the deceased Monarch.

I.

Abide with me: fast falls the eventide;
The darkness deepens; Lord, with me abide
When other helpers fail, and comforts flee,
Help of the helpless, Oh, abide with me!

II.

Swift to its close ebbs out life's little day;
Earth's joys grow dim, its glories pass away;
Change and decay in all around I see;
O Thou Who changest not, abide with me!

III.

Come not in terrors, as the King of kings;
But kind and good, with healing in Thy wings;
Tears for all woes, a heart for every plea;
Come, Friend of sinners, thus abide with me!

IV.

I need Thy presence every passing hour;
What but Thy grace can foil the tempter's power?
Who like Thyself my guide and stay can be?
Through cloud and sunshine, Oh, abide with me!

V.

I fear no foe, with Thee at hand to bless;
Ills have no weight, and tears no bitterness:
Where is death's sting? Where, grave, thy victory?
Hold Thou Thy cross before my closing eyes!

VI.

Be Thou Thyself before my closing eyes;
Shine through the gloom, and point me to the skies:
Heaven's morning breaks, and earth's vain shadows flee;
In life, in death, O Lord, abide with me!

INDIAN NATIONALISM AND INDIAN ART: BEGINNINGS OF A NEW MOVEMENT—II

(Continued from pp. 65-72 of May, 1910 number of this journal)

I

In dealing in our last number with the pre-Muhammadan Hindu-Buddhist Art, especially Sculptural Art, of India, as represented in the Exhibition held by the Indian Society of Oriental Art at the Calcutta Government Art School in February last, we attempted to show how the history of the successive phases of that Art was intimately bound up with the history of the successive developments of religious ideas and ideals of which they were embodiments. Starting from the Asokan period we showed how the purely ethical and non-mystical character of the early Buddhism, of that period embodied itself in the didactic and naturalistic art of Barhut and Sanchi, aiming simply at the representation of the edifying Jataka or Rebirth Stories of Buddha, and showing no trace of the worship of images of the Buddha, who was then regarded simply as a human teacher. Then we noticed how with the beginning of the Christian era, under the auspices of Kanishka, the great Buddhist Emperor of Northern India, the rise of the Mahayana school of Buddhism brought about a remarkable change in the art of the period, which began to represent the idealised image of the Buddha as a great Yogi, and as the *avatar* or earthly incarnation of higher spiritual beings known as Adi-Buddhas; and also to represent the images of these Adi-Buddhas themselves and of other spiritual beings called *Bodhisattva*-s and their *Sakti*-s, the *Tara*-s. We also noticed how the complex mythology of this Mahayana phase of Buddhism corresponded in many respects to the mythology of the contemporary Pauranic cults, and how for a time Mahayanism and Pauranic Hinduism had a parallel development both in the field of religion and of art, until the former was finally absorbed by the latter.

By the time, however, that this final culmination was reached, Indian Buddhism, as well as popular Hinduism, had entered on a different phase of development. The high note of spirituality and idealism that stamped itself on the religious life and art of the previous period seems to have been on the wane. Men seemed to be diverted more and more from the pursuit of the higher ideals of life into that of low, and sometimes base, worldly aims. The religious life itself came to be regarded more and more as a short cut to worldly success. The class of religious works known as the *Tantras* grew into universal favour among Hindus and Buddhists alike. The votaries of these *Tantras*

worshipped the various forms of *Sakti* with mystic rites and ceremonies prescribed therein, and strove chiefly for the attainment of what are called *Siddhis*, or supernatural powers with the aid of which they very often sought to compass personal worldly ends, *e. g.*, wealth, power, sense-enjoyments, the destruction of an enemy, and so forth. So that, in the end, the possession of the power of working miracles, even in the absence of true spirituality, came to be regarded as the sign of a saint. Thus, in its emphasis on personal and worldly aims, and in its mystic and complex ritual associated with the lower instincts of humanity, *Tantrikism* stood in sharp contrast to the self-forgetful and spontaneous character, and the lofty idealistic tone, of the earlier cults. And, at least, in its later and more degraded aspects, it tended to produce in its votaries a cramped and hardened attitude of mind, such as is hardly favourable to the rise of any nigh creative conceptions in Art.

II

It is perhaps as a sort of reaction, in higher intellectual circles, against this Tantric ritualism and this predominance of wordly aims in religion, and as a return towards higher and purer aims, that the Vedanta Movement inaugurated by Sri Sankaracharya has its greatest significance. To a world grovelling in the pursuit of low, worldly ends or the accumulation of the means of existence, and distracted by sectarian strifes and quarrels, Sankaracharya declared in no uncertain voice the absolute Unity of all truth and all existence, and the hollowness and unreality of all external things. Spiritual realisation of unity with this One Existence, by renunciation of all worldly ties, and not the pre-occupation with the objects of worldly enjoyment, was according to him, the source of the highest Bliss. It was the attainment of this highest Bliss that he set before the people as the goal of their aspirations, and in this way he sought to save them from the distraction and narrowness inseparable from the selfish pursuit of multifarious ends. Naturally such a doctrine, though it imparted a high tone to the religious thought of the epoch, could exercise practical influence only on a limited section representing, necessarily, the highest and best souls of the nation, the popular classes being still left under the sway of the old cults. As regards its bearing on Art, again, Vedantism, insisting, as it does, on the unreality of all phenomenal forms and appearances, and on *Jnana*, Right Knowledge, as opposed to *Bhakti* or Devotion and *Upasana* or Adoration, as the best means of salvation, did not naturally lend itself to artistic expression, except perhaps in such grand but highly intellectual conceptions as that of the South Indian *Nataraja*

or the Dancing Siva as representation of Cosmic Energy, noticed in the last section of our article. In all other parts of India, the universal worship of simple, unshaped stone as a *lingam* or emblem of Siva is perhaps a result of the Vedantic teaching which tended to emphasise the inability of all human Art to shape an adequate symbol of the Deity.*

But this uncompromising idealism of the Vedanta school failed to satisfy the popular craving for a cult. And naturally in the age that succeeded Sankaracharya, the age of the early Musalman invasions of Northern India, we find that while the Brahmans learned in the Sanskrit schools, were expounding and commenting on the old Vedic ritual and the tenets of the different schools of philosophy, the common people, as will appear from a study of the *vernacular literature* of the period, especially of Bengal, were still under the spell of Tantric ritualism. As the same literary evidences will show, the next development in popular religion, was one of revival of the worship of the various old Pauranic deities, and of new divinities that were now incorporated in the Pauranic system. The most popular of these were various forms of the Female Divinity or *Sakti.* The emphasis laid in these new cults on the relation of Motherhood (and protection) in which the Deity stood to her votary, as opposed to the Tantric emphasis on the *powers of self* acquired through magic rites, was their greatest redeeming feature, although the aim of worship in both cases might not have been pitched very high above worldly ends. An element was thus introduced into the religious life of the people, which later on in the 15th and 16th centuries found its highest and purest expression in the *Bhakti* Movements of Sri Chaitanya and Kavir, Nanak and Tukaram. It is only in moments of self-forgetfulness that high art is produced,—and the pure *Bhakti* that characterised the religious movements of the period, *Bhakti* that sought no other reward but Service of and blissful Union with its Object, found expression in some of the greatest works of *vernacular* poetry,—in, the Vaishnava songs of Bengal, in the Ramayana of Tulsidas, in the *Abhangas* of Tukaram,—as well as in varied forms of Music Painting, and beautiful Ceremonial.

III

In the meantime, during the period of transition, the old Hindu-Buddhist Art of Northern India, deprived of all higher religious impulses, developed a rigid and conventional character in keeping with the

* On this point *vide*, Havell, *Indian Sculpture and Painting*, p. 56; also Dr. Coomaraswamy, "*Aim of Indian Art.*"

general weakening of religious enthusiasm. And this decay of artistic impulse was brought about even before the advent of the Muhammadans, as would appear from a study of the later Buddhist images from Magadha, now in the Calcutta Museum. The same stiffness of pose, and formal, lifeless reproduction of traditional forms characterised most of the images of Hindu deities constructed during Muhammadan times, though it must be remembered that as faithfully imitating the traditions of the Art as practised in its more glorious epochs, they have a charm and beauty of their own, and are of great value as keeping up the continuity of tradition in periods barren of creative impulses. But besides this decay of inner religious fervour, there were other forces at work which were, partly at least, responsible for the decline of Hindu Sculptural Art in Northern India.

This was the advent of the early Pathan invaders of India, with their hatred of idolatrous practices, into the cities and plains of Northern India, studded with temples and shrines of Hindu divinities. The destruction and mutilation of images was one of the characteristic forms in which the early Pathan and Turkish invaders gave expression to their zeal for their faith. The whole situation especially in its bearing on Art, has been thus very neatly hit off by Dr. Coomaraswamy. Speaking of the changes that had come over the land before the establishment of the Mughal Empire, he writes,—"A great change has passed over the land; Buddhism has, as such, died out everywhere except in Nepal and Ceylon; elsewhere it has been absorbed into the final synthesis of Hinduism. Still more significant, the North of India has been invaded, and to a great extent subdued by Musulman conquerors. Islam, with its artistic puritanism and hatred of idolatry on the one hand, and its forcible conquest and disturbance of the Hindu polity on the other, had certainly wrecked a great deal of the artistic tradition previously existing, and as far as sculpture is concerned, practically put an end to its development, except in the South. Even there it declines after the thirteenth or fourteenth century. Hindu tradition in Painting, however, survived in certain districts."*

But though during the earlier periods, and in isolated instances in the later periods, the forces of Islam, in the matter of Art, were arrayed on the side of destruction, it was not always to be so. For with the establishment of the Great Mughals on the throne of Delhi, a new art of *miniature painting*, known as Mughal Painting, was introduced through their agency in the great cities of Northern India, where they reached a remarkable development in the hands of Indian painters,

* "Mediæval Indian Painting," *Modern Review* for April, 1910.

Hindu as well as Muhammadan. And it must be remembered that the great revival of Indian Art, Literature, Music, and Architecture in Northern India, in the 16th and 17th centuries, was synchronous, not only with a strengthening of religious impulses (through the movements inaugurated by religious leaders like Nanak, Kabir and Sri Chaitanya), but also with the adoption of a more liberal, tolerant and friendly policy towards the Hindus, by the Mughal rulers of Delhi.

This new development of Indian Art under the Mughals brings us once more to our Exhibition, where a large collection of beautiful specimens of the mediæval schools of Indian Painting, Muhammadan as well as Hindu, were on view. It was with the establishment of the Mughal power on the Delhi throne that the Imperial Court became the centre of this new school of Indian Painting. This school is sometimes designated as the Mughal school, and sometimes, Indo-Persian. For, it was the Mughal rulers that introduced this art originally from Persia, though the remarkable development it reached on Indian soil and in the hands of Indian painters, Hindu as well as Muhammadan, is sufficient to characterise it as an *Indian* school of painting, differentiated from, and in some respects surpassing, its Persian prototype.

IV

This introduction of Persian art, as well as of Persian language and literature into India by the Mughal rulers of Delhi was but part of the larger work that these rude but vigorous Mongol or Mughal races of the desert-steppes of Central Asia were instrumental in carrying out, in their capacity as the carriers of the seeds of culture from one nation to another. For, the popular notion that the Mongol invasions of the 13th and 14th centuries are wholly characterised by violence and destructive fury has to be considerably revised and modified in the light of the fact, that these Mongol races, though themselves devoid of any original culture or civilisation, were not only ready and eager to assimilate the culture of their more civilised neighbours with whom they came in contact, but they also enriched these old systems of culture with elements borrowed and transplanted from their neighbours. The importance of the service to Asiatic Civilisation which they rendered in this way will only be fully realised if we remember that the old spiritual and commercial intercourse between the nations of Eastern and Central Asia during the palmy days of Buddhism in India, was now a thing of the past, and that China, India and Persia, the seats of the three oldest and mightiest civilisations of Asia were now like so many stagnant pools cut off

from the wider currents of Asiatic Life and Thought. It was into such a world that the Mongols stepped forth not only as conquerors and military raiders, but as carriers and middlemen, through whom was once more brought about a partial meeting and union between the culture-systems of Persia, India, and China. As has been clearly brought out by Professor E. G. Browne in his *Literary History of Persia*, (pp. 441-442), one of the good effects of the Mongol invasion was the "extraordinary intermixture of remote peoples, resulting in a refreshing of somewhat stagnant mental reservoirs, which it brought about." And in Asia, it brought together, first in conflict, and then in consultation, Persians and Arabs with Chinese and Tibetans, and confronted, on terms of equality which had not existed for five or six centuries, the doctors of Islam with Christian Monks, Buddhist Lamas, Mongol *Bakhshis* or medicine men, and the representatives of other religions and sects. In Europe it was a cause, if not the chief cause, of the Renaissance, for it thrust the Ottoman Turks out of the obscurity of Khurâsân into the prominence of Constantinople, and was thus ultimately responsible for the destruction of the Byzantine Empire and the dispersion of the Greeks and their treasures into Europe." The same testimony is borne by another distinguished, recent writer, Mr. Laurence Binyon, the author of *Painting in the Far East*, who, speaking of the conquest of Western Asia by such Mongol conquerors as Genghis and Kublai Khan, observes on p. 151 of his work,—"The conquest of Persia by the armies of Genghis and Kublai Khan set up once more a quickened current of communication between the East and West of Asia. And the succeeding conquests of Tamerlane at the end of the fourteenth century provoked yet further a stimulating intercourse and fusion of ideas, *in spite of all the havoc and slaughter which they caused.* Under the successors of Tamerlane a flourshing school of art arose in the heart of Asia, at Samarkhand." One of the ways in which the Mongols performed their function as the carriers and middlemen of civilization and culture between the different countries of Asia is well illustrated by the following fact recorded of Timur, the ancestor of the Indian Mughal dynasty. "When Timur withdrew his hosts from Northern India in 1398, after ravaging it with fire and sword, he took back with him as captives all the masons who had built the famous mosque at Ferozabad, in order that they might build one like it at Samarkhand";—thus probably laying the foundation of the Samarkhand school of Saracenic architecture.*

* Havell's *Indian Sculpture and Painting*, p. 182.

A far less violent, and more enlightened policy akin to that of Akbar himself, the great Mughal ruler of India, was that followed by Timur's great ancestor, Kublai Khan, whose conquest of Western Asia has already been referred to. In 1264, he also effected the conquest of China, which was then being ruled by the House of *Sung*, and established himself on the throne of Pekin. This Kublai, says Mr. Binyon in p. 146, of his book, was no mere barbarian ; the arts and literature flourished under his wise rule, and, continues the same authority, "the Mongols, like other conquerors, went to school with those whom they conquered and became absorbed into Chinese civilization.*" In this connection, one specific instance will serve to show the nature of the policy which that great Mughal conqueror of China adopted towards the indigenous culture of the land. Chao Meng-fu, himself a descendant of the imperial House of Sung whom Kublai had supplanted, was the greatest Chinese painter of this period. He had retired into private life on the final downfall of his family at the hands of the Mongol conqueror. But Kublai summoned him to court in 1286 and thenceforward he became a favourite of the Mongol Emperor, one of his famous paintings being the "Eight Horses in the Park of Kublai Khan." †

In this way the Mongols assimilated the art and culture of China from the very outset, and it is no wonder that the schools of miniature painters which arose in the Mongol cities of Samarkhand and Herat during the rule of Timur and his descendants bear strong impress of this Chinese influence. It was this Mongol art of Samarkhand and Herat, imbued, as it had been, with Chinese influence that exercised a profound revitalising influence on the decaying schools of Persian painting. And when afterwards the Mughals occupied India, they brought with them this very Persian painting, modified as it had been with the Chinese influence with which they had infused it, and planted it on Indian soil, where it acquired fresh life and vigour.

Here we conclude this rather lengthy historical review of some of the principal episodes of Indian and Asiatic history which have a bearing on the rise and development of the Mediæval schools of Indian Painting, hoping to proceed in a future issue, to a consideration of the art itself, its varied development in the different parts of India in the hands of Hindu as well as of Mussalman painters, and especially of the

* It must be remembered in this connection that Kublai, like most Mongols of the present day, was a pious Buddhist of the Lamaist or Tibetan School, the conversion to Islam of the Mongol races through contact with the Arabs, being of a subsequent date. (*Vide* Binyon's *Painting in the Far East*, p. 149.)

† Binyon's *Painting in the Far East*, p. 152.

numerous examples of the art brought together at the last Exhibition of the Indian Society of Oriental Art.

DAWN MAGAZINE OFFICE, Calcutta. | RABINDRA NARAYAN GHOSH, M.A.

MARITIME ACTIVITY AND ENTERPRISE IN ANCIENT INDIA: INTERCOURSE AND TRADE BY SEA WITH CHINA—II

(Continued from pp. 73-78 of May, 1910 number of this journal)

V. Indian Commercial Settlements in China

The evidence of the oldest coins discovered in China corroborated by the testimony of various Chinese authorities prove that in the seventh century before the birth of Christ, Indian merchants established a powerful settlement on the coast of China, introduced the first coins into that country, and for several centuries continued to hold an independent and influential position, carrying, through their colony, an active trade between their mother-country and China and exercising a most remarkable influence on Chinese civilisation. The learned Professor Terrien De Lacouperie, Ph. D., Litt. D., proves from Chinese sources (vide his *Western Origin of the Early Chinese Civilisation*, p. 89), that the " Sea-traders of the Indian Ocean " founded around the present Gulf of Kiao-tchou, where the Germans have at present established a naval base, inspite of opposition offered by a small Chinese State in the neighbourhood about 680 B. C., a colony which they called *Lang-ga* or *Lang-ya* after the old Ceylonese Lanka and having their mart and mint at a place called *Tsi-mieh* or *Tsi-moh* to the north of the Gulf. These sea-traders "reckoned among them sea-farers from the Arabian Sea, but their chiefs were Hindus. One of them named Kutlu, *i. e. Gotra*, shown by the story of a cow connected with his visit, was the object of a grand and unusual reception at the Court of a Chinese prince (of Lu in the South Shantung peninsula) in 631 B. C." (*Ibid.* p. 89). The colony was independent and situated in territory beyond the Chinese dominion which did not extend to the coast in that part in those days, and it seems they did not carry on trade under the approved Chinese method of paying tribute.

Numismatics or the Science of Coins and Medals furnish very clear evidence of the great influence exercised by these colonies controlled by and consisting in a great part of Indian merchants. There is clear evidence that they formed a powerful guild and they instituted the first inscribed metallic currency in China in 675 to 670 B. C. which was soon imitated by the prince of the neighbouring Chinese Kingdom with whom they were on friendly terms and

carried on extensive relations. In later times in the sixth century, between 580 and 550 B. C. they formed a monetary union with several inland Chinese cities for the issue of coins with joint names. The colonists of Lang-ya again issued a currency of large plate coins between the years 472—380 B. C. in connexion with the guilds of merchants of two other Chinese towns. Various specimens of these coins issued by the settlers of *Lang-ya* inscribed with the name of the place of issue *Tsi-moh* where their mint was situated, have been found in China and been described by Professor T. de Lacouperie in his standard work on early Chinese numismatics—*Catalogue of Chinese Coins from the VIIth century B.C. to A. D. 621* (*vide* pp. xiii, xlviii and 224—225).* The joint issues of coins show that the marts of these colonies established in those early days trade relations with various provinces in the interior and borders of China, and this fact alone would sufficiently demonstrate that the influence of these foreign merchants must have been extensive indeed.

VI. Indian Colonists : Detailed Account of their Migrations and their Fortunes

(A)

These colonists from the Indian Ocean arrived in China, as Professor Lacouperie notes, in vessels having the bows shaped like the heads of birds or other animals with two big eyes painted thereon, and having two sculls at the stern, features which were imitated by the Chinese when building their own navy (1); the Professor is inclined to think that they were probably of Phoenician origin. In this, however, he is in error for we shall conclusively show that they were undoubtedly of Indian origin. Vessels having at the bow the figure of various animals—the peacock, the *Makara*, the fish hawk, the common aquatic birds and other animals—have been built in India from very ancient times and may even now be met with occasionally; in fact, the whole keel of the vessel was often so designed as to give it the appearance of an aquatic animal floating on the waves. The ship represented on the western gateway of No. 1 Stupa at Sanchi *built in the third century B. C.* has its prow "formed by a winged gryphon (*i.e.* a Makara) and its stern by a fish's tail." (*Vide—Sanchi and its Remains* by General F. C. Maisley, p. 59). The vessels painted on the walls of the caves at Ajanta representing the landing of Vijaya in Ceylon have the prows shaped like animals' heads; while a big sea-going vessel and a pleasure-boat painted in the

* *Vide* also an article on "*The Early Commerce of Babylon with India—700-300 B. C.*, by J. Kennedy, I. C. S. (retired) in the J. R. A. S., 1898, p. 265.

(1) *Vide* "Western Origin of the Early Chinese Civilisation" by Prof. Terrien de Lacouperie, pp. 106, 260 381.

same caves, have on them two prominent eyes at the bow, the former showing also two sculls at the stern. (*Vide* illustrations of them by the distinguished Bengali painter, Babu Nandalal Bose, in the *Modern Review* for May, 1910). These instances might be multiplied very easily. The big merchant boats, the remnants of the once famous Bengal marine, that now ply the vast rivers of Eastern Bengal, have on almost all of them, two big eyes either of brass or painted with vermillion under the bow.

(B)

The history of the Indian settlers at *Lang-ya* and *Tsi-moh* in China, as compiled after a minute and critical examination of a heavy mass of Chinese and other literature by the learned Professor from whom we have already quoted, shows their various fortunes, their successes and reverses, their frequent migrations and the continuous commercial intercourse by sea that they kept up from the *seventh century B. C.* till their final absorption in the kingdom of Cambodja founded by Hindus in the Indo-Chinese Peninsula (*Further India*) about the commencement of the Christian era. In the following description we are borrowing wholly from the pages of the Professor's *Western Origin of the Early Chinese Civilisation.* From the very first, these colonies were independent and situated on territory outside the limits of the Chinese Dominion. The progressive advance of Chinese power over the land gradually drove them away from the central stations and marts of their selection. They always chose, for their trading stations, places on the sea-coast at proximity of the Chinese, but without the limits of the Chinese territory. They wanted thus to be enabled to trade easily with the Chinese centres, without losing their own independence, and running the risks of seizure of their goods or of extra duties and taxes. At first, when the Chinese were settled chiefly around the basin of the *Hwang-ho*, the greater part of the remainder of the country being uncivilised and wild, they established their settlements on the south side of the *Shantung* peninsula in the Gulf of *Kiao-tchou*, which they frequented during the three centuries *B. C.* 675-375. About 547 *B. C.*, they had to recognise the suzerainty of the neighbouring Chinese Kingdom and in 493 *B. C.* they were conquered by another Chinese Kingdom which in its turn was destroyed shortly after (472 *B. C.*) by a fresh Chinese family, the *Yueh.* These civil wars drove them away from *Lang-ya* and *Tsi-moh* and they went to the ports of *Kwei-Ki* and *Tung-yeh.* The former they had to give up in 207 *B. C.* when the Chinese Empire extended its sway to the place and the latter when internecine war (140-110 *B. C.*) disturbed the country, finally shifting their quarters to the Annamese coasts, to the west of Cambodia. (*Vide*

Western Origin of the Early Chinese Civilisation pp. 237-240). The Chinese state which took possession of the territory of these colonists in 472 *B. C.* removed its capital to their emporium *Lang-ya* in the same year, and on the occasion the colonists lent their navy frequenting the Chinese coast for commercial purposes, to carry 2800 soldiers (*Ibid* p. 262). During the half century immediately preceding the final transfer of their emporium from *Lang-ya* (425-375 *B. C.*) the trade from the Indian Ocean to the coasts of China passed more completely into the hands of Indian mariners who had been compelled, however, for some reasons not definitely known at present, but perhaps owing to the difficulty of re-victualling their ships, to shift their former sea-route through the Straits of Malacca and to navigate by a longer and more circuitous path by the south of Sumatra and Java. The articles imported by these traders are historical witnesses of the Indian trade carried on with the south of China at the time (*Ibid* p. 387). They imported and introduced into China various characteristic Indian products as may be learned from the records relating to the Chinese Kingdom in their neighbourhood the rulers of which could get for themselves those rarities. Thus we find these merchants importing about the end of the fourth century *B.C.* (324-310 *B.C.*), asbestos wicks which could not be got from elesewhere than Badakshan and the rainless plains of Northern India, rhinoceroses of northern India, rubies of Badakshan etc., articles which must have come from the north-west sea-borders of India ; and also pearls and mother of pearls of the Indian Ocean and various commodities of like nature which were looked upon as novelties in China at the time. In the third century B.C. they introduced for the first time in China sugar-of-cane and sugar-candy, India being then and for long afterwards the sole sugar-producing country (*Ibid* pp. 178-181).

Coming down to the *second century B. C.* we find these colonists (who owing to the appearance of other competitors from the Red Sea had to establish stations and marts at all the points of vantage on the Chinese coast though maintaining their independent central settlement outside Chinese territory), importing through the semi-Chinese ports of *Hoppu* and *Kattigara*, fragrant plants from Southern India, peacocks which had been exported by Indian traders to the west since very ancient times but appear now for the first time in China, corals which were perhaps imported into India and re-exported from its emporia on the coast, and other Indian articles of merchandise. (*Ibid* pp. 232-235). At this period also, these mariners acquainted with the pearl fisheries of Ceylon and the Persian Gulf discovered pearls on the

western coast of the island of Hainan off the coast of China and created pearl fisheries there (*Ibid* p. 240). Coming down to still later times, 111 *B.C.*, we find the Chinese Emperor planting in the Imperial gardens at the Capital, various Indian plants unknown in China before but introduced by these traders of India (*Ibid* p. 246). Soon after this we hear again of these traders presenting to the Emperor of China a large quantity of bright pearls, curious stones and some coloured glass manufactured in the Kingdom of the old Gandhara in modern Afghanistan which was an Indian province in those days. The Emperor was so pleased with this glass that he sent a special envoy by sea to purchase a quantity of this article from the southern emporium of the Indian colonists (*Ibid* p. 246).

In still later times, about the beginning of the Christian era, these colonists are no longer heard of. About B.C. 53, according to a Chinese book *Funam-tu-suh-tchuan* (quoted by Professor Lacouperie) written in the third century A. D., there landed at their port with his companions, *Kuntien*, the Hindu founder of the Kingdom of Cambodia which (known to the Chinese as the *Funam* or *Phnom* Kingdom) gradually absorbed the older colony and remained for several centuries the great centre of foreign trade in that quarter (*Ibid* pp. 240-242).

(C)

Similar communities of Indian merchants, though without the power or influence of the earlier settlements, continued to live in China till very recent times. Chao-Jukua, a Chinese Inspector of foreign trade at the Chinese port of Fu-kien at the beginning of the thirteenth century after Christ, says in his *Chu-fau-chih* (i.e. Record of foreign nations), an important work on the oriental sea-trade in China, in describing the kingdom of Malabar, that two of his acquaintances, Shih-lo-pa-chih-li-kan, father and son, came from Malabar and lived at his time in the south of the city of Chuan. We are also told that in Chao-Jukua's time, in the southern suburbs of the above city containing the foreign settlement, there stood a Buddhist monastery built by an Indian devotee *Lo-hu-na* (perhaps Rahula) at the end of the tenth century A.D.; Rahula arrived there from India by sea (during A.D. 984-988) and the foreign merchants at the port, no doubt Indians, Ceylonese, etc., vied with each other in presenting him with gold, silks, jewels and precious stones. But the devotee was not in want of these himself. He invested the presents thus received in the purchase of a piece of ground on which he built the Buddhist temple above referred to, in the quarter of the town occupied by his countrymen. (*Vide. J. R. A. S.*, 1896-pp. 75, 486, 499).

Ma-tuan-lin, whose Chinese encyclopaedia in a hundred volumes compiled in the thirteenth century A.D., has been drawn upon largely by

modern European scholars, says in that great work that Inspectors of Trade were appointed at several Chinese ports in the year 999 A. D. "*at the request and for the convenience. of foreign officials*," which, adds Dr. Hirth, who quotes the above in the J. R. A. S., " may involve that foreign, probably Arab or Persian or Indian, communities then existed at those ports and that they were under the jurisdiction of judges of their own nationality." (*vide J. R. A. S.*-1896, p. 69).

VII. Chinese Pilgrims to India: Evidence of Commercial Intercourse between India and China (4th and 5th Centuries A.D.)

(A)

Beside the evidence of an extensive commercial relation between India and China already placed before the reader, we have to mention another class of evidence bearing on the subject,—that supplied by the *Records* of travels of noted Buddhist Chinese pilgrims who visited India impelled by religious fervour to study Buddhism at its home and in search of Buddhist sacred books and Buddhist sacred images, relics and medals. The earliest of these travellers was Fa-hien who travelled from India to China in Indian merchant ships. He started for India from his country in 399 A. D., in search of complete copies of the Buddhist Books of Discipline (*i. e.* the *Vinaya Pitaka* forming one of the three parts of the Buhdhist *Tripitaka* or threefold canon). After six years passed on the route through Central Asia to India and after six more passed in studying and collecting Sanskrit texts of the Buddhist sacred books, he reached the Bengal port of *Tamralipti* (modern Tamluk) where 'he embarked in a large merchant vessel, and went floating over the sea to the south-west,' and with favourable wind, 'after fourteen days, sailing day and night, came to the country of Singhala' (*vide* p. 100, Fa-hien's *Record of Buddhistic Kingdoms* translated and annotated by James Legge, M. A., Ph. D.). We learn on the pilgrims' own testimony that a white silk fan imported from his native land which he saw there suddenly one day being presented by a merchant to a Buddhist image, brought forth a flood of tears to his eyes that had rested for years together on no 'familiar hill or river, plant or tree.' This undoubtedly points to the existence of commercial intercourse at the time between Ceylon and China (*Ibid*, p. 103). After staying for two years in Ceylon and collecting more Sanskrit books, he took passage for China in a large Indian merchantman. After about ninety days of storm and tempest in which the lives of the inmates were well-nigh lost and the pilgrim was in imminent risk of losing all his treasures—books and images—which it had taken him long weary years to collect, the vessel reached the *Hindu colony* in

the island of *Java* in the Malay Archipelago. After a stay of five months at that place, he set out again in another equally large merchant vessel which also met with an equally bad luck on the sea and after eighty-two days of troublesome voyage, reached the coast of China at a point in the Gulf of *Kiaotchou* to the west of the ancient Indian settlement of *Tsi-moh.*

(B)

The story of this voyage from Ceylon to China is highly interesting and instructive, and requires to be studied by every one in the pilgrim's own words.* The narrative gives us a vivid description of an ocean-journey in those ancient days, and teaches us many things relating to the navigation, trade and colonisation of the ancient Indians. It would be seen that if an Indian vessel like the one in which the Chinese pilgrim took passage for China *via* Java, could provide accommodation for 'two hundred men and more' together with provisions and water for all for upwards of ninety days, and if, further, she could also provide accommodation for merchandise sufficiently large in quantity to make the venture worth the perils and trouble, the art of ship-building for the purposes of commercial and other intercourse with distant lands must have made some real advance in ancient India. The circumstances mentioned above together with the fact that the route to China appears to be very well known to the mariners, so that in spite of the tempest and darkening of the sky, they were able to reach their destination in safety, Indian ships must have been frequenting the Chinese waters for a long time past. The inference that we have just drawn does not stand alone but is corroborated by the authentic history already described in detail on a previous page of the Indian commercial settlements in China, covering a period extending from the seventh century B.C., to the commencement of the Christian era. The vessels, we find, were guided in those days by the observation of the sun, moon and stars. As the Indians had cultivated a practical knowledge of astronomy from very ancient times, the mariners found little difficulty in guiding themselves with accuracy whenever there was a clear sky.

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* *Vide* pp. 111-116 of Professor Legge's translation of "A Record of Buddhistic Kingdoms," in Chinese written by Fa-Hien himself after his return to China at the request of his religious instructor *Kumarajiva* (कुमारजीव) who, be it noted, was an Indian and perhaps the greatest of the many Indians who laboured at the work of translating the Buddhist canonical works into Chinese Fa-hien's work has been translated into English by various English scholars, that of Professor Legge published in 1886, being the latest and accepted as the most accurate.

THE DAWN

एकरूपेण ह्यवस्थितो योऽर्थः स परमार्थः ।

THAT WHICH IS EVER-PERMANENT IN ONE MODE OF BEING IS THE TRUTH.—SANKARA.

WHOLE No. LXI. } CALCUTTA, AUGUST, 1902. { No. 1. VOL. VI.

THE OTHER SIDE OF WESTERN CIVILISATION.—I. —THE PROBLEM OF HOUSING THE POOR IN THE GREAT CITIES.

BY

THE HON. SIDNEY PEEL.

[**N.B.—We are indebted to the courtesy of the Northern Newspaper Syndicate, U. S. A., for the present article. The author is a well-known English writer on practical economic questions, and it is no pride to this magazine that it could count among its many distinguished contributors the name of the Honourable Sidney Peel, author of "Practical Licensing Reform."—Editor. DAWN.**]

The Housing problem has been with us now for half a century, and yet the difficulties which surround its solution bristle as thickly or nearly as thickly as ever. Not that these difficulties have existed for only fifty years, but it is only fifty years since public attention began to be seriously directed towards them. Before that, problems like the food supply were a more pressing difficulty even than housing; men's minds were occupied with other things, and the growth of the towns was allowed to proceed in a haphazard fashion, of which we are feeling very many ill-effects to-day.

Of course overcrowding and insanitary conditions are not confined to towns; there is a rural problem as well as an urban one. For these are things, which are produced not only by special economic causes, but also by the ingrained imperfections of human nature—carelessness, indifference

and laziness. I have seen cases on the broad uplands of South Africa of dreadful dirtiness and overcrowding in a one-roomed hut, due to nothing whatever but the deliberate choice of its inhabitants. In the country, people are often badly housed because the owner of the houses is too poor to put them in proper repair, or to build new ones. But at any rate, the country is the country, and fresh air is always within easy reach; there is not that overcrowding of people to the acre which makes the question so terrible in towns.

In the towns, the overcrowding has mainly arisen from sheer lack of room. Everyone wished to be as near their work as possible; and the inner belt next to the business core of the town became closely packed enough. When the business part began to grow, people began to find it more profitable to let their property as business premises than as dwelling-houses, and the dwelling space became more contracted than ever; those who could afford the time and expense of living at a distance from their work moved out into the outer belt, and the poorer remained more crowded than ever. Land in the inner belt became more and more valuable, and rents went up. The poor became unable to afford more than a room or two. Houses which were built with arrangements suitable for a single family were cut up into several tenements, for which their sanitary and other arrangements were totally unadapted, and by this means all the worst conditions of overcrowding began to be realised.

IN LONDON.

In London, you may see rows and rows of respectable-looking tenement-cottages, but, if you go into them, you will find them partitioned off, and several families living in the space originally intended for one in indescribable squalor and meanness. It is obiviously useless to have properly built houses, if they are occupied in this manner. Moreover, when fresh buildings are put up in such localities, it is naturally the object of the builder to house as many people as possible on the ground; and the result is the huge

blocks of workmen's dwellings, which used to be built with more regard to the profits to be drawn from them than the comfort and well-being of the inmates. As anyone approaches the heart of London from the outskirts, he can easily measure the increasing value of the land by the height of the dwelling-houses, until at last in the centre, it becomes too valuable to be used for this purpose, and is exclusively employed for business premises.

The problem is different in town and country, but it has also several varying aspects in the town, according as we are seeking to house single persons or families and according to the status of the persons affected—clerks, artisans, or the very poor labourers and semi-vagrants, who earn a precarious living by casual work at docks or similar employment It is the families of this latter class, whose accommodation presents the most discouraging difficulties. They are so poor that they can hardly afford to pay such rents as will afford a reasonable return for private or municipal enterprise. They have been so beaten down by the miserable and unhealthy surroundings to which they have always been accustomed that, when some insanitary rookery has been cleared, and better dwellings have been erected, they very seldom avail themselves of the opportunity to return, even if it is offered. They are almost terrified by the cleanliness, the light of numerous windows, and the elaborate sanitary arrangements, that they prefer to retire to some slum, whither they can carry their former habits of life, and pursue them unashamed; or, if their new retreat is superior to the old, it is not long before they reduce it to the level of the other. These melancholy facts are part of the greater problem of poverty which reaches further and deeper than the housing question itself. Here too, more than in other walks of life is felt the baneful influence of drink. To people living in such conditions, drink is the one amusement and refuge, and the waste thus caused intensifies the poverty and the squalor, and so the vicious circle starts again. But

all this is a reason for fresh efforts, and not for despair. Much has been done already, though much still remains to do.

LEGISLATION ON THE SUBJECT.

To Lord Shaftesbury belongs the credit of having been the first to call public attention to the matter and to initiate that long series of legislative enactments, which, had it been possible to strictly enforce them, would have gone far to alleviate the evils complained of. In the year 1851, he passed the Common Lodging Houses Act, and the Labouring Classes Lodging Houses Act. Then followed what are known as the Torrens' Acts (1868—79) and the Cross' Acts (1875—82). The first of these proceeded on the principle, that "the responsibility of maintaining his houses in proper condition falls upon the owner, and that if he fails in his duty the law is justified in stepping in and compelling him to perform it." If all other means of making the houses habitable fail, they ought then to be closed, demolished and rebuilt. The Cross' Acts were intended to gain the same object on a larger scale. "They contemplated dealing with whole areas, where the houses are so structurally defective as to be incapable of repair, and so ill-placed with reference to each other, as to require to bring them up to a proper sanitary standard nothing short of demolition and reconstruction. Accordingly, the local authority, armed with compulsory powers, at once enters as a purchaser, and on completion of the purchase at once proceeds to a scheme of reconstruction." In spite of these powers, however, the Royal Commission which sat in 1884, found that very little had been done, the evils of overcrowding remained terribly prevalent, and, whatever little improvements had been effected, their results were more than swamped by the flow of population into the towns. In 1890, a great consolidating and amending Housing Act was passed, and this has been followed by various Public Health Acts, giving the local authorities powers to deal with sanitation, and by Building Acts, which regulate the height of new buildings, the amount of air-space

to be provided round them, and give power to make bye-laws on these subjects: and beyond this, powers have been given to local authorities to acquire land for building dwelling-houses lying outside their own immediate jurisdiction.

It is difficult to see that much can be effected by further legislation on these lines. People are awake to the importance of the subject. Local authorities are generally active in securing the maintenance of existing open spaces and acquiring new ones in and around the neighbourhood of great cities; probably now no houses of the back-to-back pattern and similar objectionable designs are allowed to be built; the necessity for light and air, good drainage and water supply is more fully understood. Perhaps it is too soon for all this legislation to have been fully digested, and to bear fruit; but, without wishing to criticise too harshly, it must be said that the central problem, the *housing of the very poor*, remains unsolved yet. It is estimated that in London eight per cent. of the population are living in one-roomed tenements, many of them in an overcrowded and insanitary condition; while of people living in tenements of more than one room, many are overcrowded, though a part of this is due to a misuse rather than a lack of space. Some provincial towns have gained an evil notoriety in the matter of housing, and in many places glaring cases of insanitary areas are allowed to continue untouched.

In one direction, indeed, the problem may be said to have been solved, the *housing of single men*; and this is due to the courage and ingenuity of one man, Lord Rowton. In the famous Rowton Houses, a man for the sum of 6d. a day can obtain a bed in a separate cubicle, and in the daytime has the use of a well-appointed smoking room, reading-room, library and kitchen; while all the arrangements for washing and sanitary requirements are excellent. Not only has Lord Rowton thus actually housed a number of men, but he has proved that, when the operation is carried out on a sufficiently large scale, it is possible to pay a full dividend. His example

has been imitated by the local authorities even as far afield as Milan, and the excellent accommodation which he provides has gone far to raise the standard of living in neighbouring lodging-houses conducted by private persons. It has been asserted that these houses offer a temptation to men to desert their families; probably there is very little foundation for this, but it is certain that the general housing question has been affected by the withdrawal of so many men, who would otherwise have been lodgers in wretched tenements already full enough.

But this, as has been said, is only one point, and without neglecting the work that has been done by local bodies, what they have done in the way of demolition, and reconstruction, or of building new houses, is but a drop in the ocean. Sometimes they have been held back by mere indifference, sometimes by considerations of expense; for they are all responsible to the rate-payers, who might not be able to see the wisdom of present expenditure to prevent future waste. There is too the old question of how far municipal enterprise ought to go; of course, everybody would like to see sufficient houses built, if necessary, by the municipality, which would be self-supporting and produce the necessary interest and sinking fund to pay off the loan; but the difficulty is that if the 60 years period of repayment now laid down is adhered to, it is impossible sometimes to keep the rents so low as to be of any use to the poorest class. It has been suggested that this period should be extended to 80 or 100 years, and this might well be, provided that special precautions are taken that the houses are so built as to have a good prospect of lasting considerably longer than that period.

TWO MEANS OF IMPROVEMENT.

Two other lines of improvement are suggested, by which the congestion of the towns might be relieved. The first is the improvement of communication and conveyance from the central business districts to the outside. The railway companies are already compelled by law to run a number of workmen's trains into London before a certain hour in the

morning, which carry passengers at reduced fares. The new electric tubes hold out great promise of increased facilities in this direction. The system of tramways, too, has been very much improved in many towns; and there is here a legitimate field for municipal enterprise. Whether we shall ever see causeways leading into our great towns covered with motor-cars filled with men going thus speedily to their work, as suggested by a prominent statesman, must be still in doubt for some time. But it is certain that the humbler bicycle has played no inconsiderable part in enabling people to live at a distance from their work.

The other is the encouragement of factories and workshops to remove from the town into the country. With the increased facilities of communication, it will be likely that this process, which has already begun, will go on, and that great manufactories will be established and form a separate community in some county district. But too much cannot be expected from this. A good many difficulties stand in the way. You cannot move a great business as you would a gipsy's van. It has probably been originally attached to the town by some natural economic advantages, and the work-people too are often very reluctant to move. They naturally feel that if they are transported into the country their freedom is by so much curtailed: they are far more dependent upon the master whom they serve, they stand in danger of becoming once more bound to the soil: and this real or imagined loss of liberty goes far to counteract the advantages of purer air, more room, and healthier and more beautiful surroundings.

One thing which is apt to deter local authorities from demolishing insanitary areas is the difficulty, or indeed sometimes the impossibility of rehousing those who are thus evicted, when there is nowhere to put them. The recent Act which permits the local authority to acquire land for this purpose outside its own bounds is a step in the right direction, for it points to what must really be the solution of the difficulty, if one is to be found. The root of the difficulty is that too many people are trying to live in a confined area;

one acre cannot provide more than a certain amount of light and air, however deftly the swarm is packed.

REMEDY OUTSIDE THE TOWNS.

However it is to be effected, the heap must be flattened out before the evil can be said to be cured. Therefore, the remedy lies outside the towns and not in them, or rather in the suburbs and not in the heart of the city. Nothing will be done, however, if towns are allowed to grow in the casual haphazard fashion of the past. They must expand upon a well-thought-out plan. It is not difficult to roughly conceive what the ideal should be. There should be broad arteries of traffic, connecting the outskirts with the business centre, like the spokes of a wheel; so broad as to permit tramways to run without impeding the ordinary wheeled vehicles: there should be good communication between the outlying quarters by means of similar tramways, or underground electric railways; and provision should be made for maintaining proper parks and breathing spaces. On the ground allotted to building purposes the landowners should be allowed to build, subject to the approval of their plans by the constituted authorities, and the unoccupied land within the planned area should be rated to assist in proper compensation to those whose land was taken for roadways or open spaces. The landowners would not, of course, obtain the unearned increment, which the ordinary spread of the town would give them; but the prevention of such increment would after all be no great injustice.

Were some such scheme in force, the central overcrowded and insanitary areas could be fairly tackled, and the plague spots removed, in accordance with the purpose of the already existing law. Such a scheme is a practical one, even in London itself, but it could not be carried out by any existing local authorities. Their scope is too narrow, and the conflict of authorities too great. In each town there should be some special authority created, independent of existing municipal restrictions, with wide powers and responsible to Parliament.

alone whose sole duty should consist in making the arrangements I have indicated in outline.

To perform such duties would be no sinecure; they would demand much hard thinking and hard working. Looking to the fact that the solution lies outside the towns, and to the conditions of municipal life, it is impossible to get them adequately performed by the local authorities. Unless some striking change takes place in the tendencies of the age, there is no other way of solving these difficulties except by some national effort. And after all it is worth while, for this is truly a question of national importance.

SIDNEY PEEL.

IN THE HEART OF THE CITY.

[BY MISS SARALA DEVI GHOSAL, B.A., Editor, The *Bharati.*]

As I enter the town to-day after a long time, and pass through the Indan quarter, what is it that strikes the eye? Here there are no palatial mansions, no marble verandahs, no spruce tennis-courts, no endless procession of white faces of either sex on Tum-Tums, Broughams, bicycles and hired phætons along bright well-kept roads,—but only hundreds of close-packed, big and small and middling, old and new, ugly and pretty houses, and thousands and thousands of brown faces, soft as burnt earth, beautiful as molten gold. As the houses are innocent of all signs of wealth and luxury, so are all these faces devoid of the glow of a manly spirit. Alas! how should these houses afford to display a wealth of verdure? With difficulty do they manage to stand on one or two or three cottahs of land. Shelter must be found within their small limits for countless men and women, for tender infants and delicate children. These houses fulfil their function by offering a loving protection to innumerable human beings from the inclemencies of the wind and rain and sun;—it is no shame to them that they are unable to display the charms of garden and grove. And all these human beings? How many of them are free from care? Not that they worry themselves over any exaggerated ideal of happiness, but how many are assured even of their daily food and clothing? Are there not countless respectable middle-class families in Calcutta, whose monthly income is a bare pittance of fifteen, twenty or thirty rupees? How is it possible for their faces and eyes to flash forth pride and spirit?

But is that so? If one's nature be spirited, could it be crushed by the grinding of poverty? Now-a-days we are constantly reminded of Japan in comparison with ourselves. Japan was just as poor as we are, she was equally under the spell of Western civilisation, aye oppressed by its grandeur and its glamour. But soon she learnt to shake of the glamour and was herself again. And we? We despise, ourselves and glory in despising; we think meanly of ourselves and glory in so doing; we are too much—aye, too much under the spell of the Westerner's greatness. But enough of fault-finding,—if once we begin to find fault, faults will never end. Yes, indeed, we have something; there is charm and wealth in these men even as in their dwellings. We must penetrate into both, if we would know them well.

Entering the house, I find two courtyards,—the inner and the outer. To me, no English tennis-court has the charm and fascination of a well-kept Indian courtyard. Enclosed by the four walls of the house, there is a large piece of open sky overhead and on all sides it is surrounded by the apartments of the house. The occupants of each room receive from it an equal share of light and air. It is here that the sun appears to those who are "unseen by the sun;" it is here that the moon brings its offering of silver light, and the first pattering rain-drops pour forth their nectar. It is from the petals and fragrance of a few jasmine and *champak* trees planted in this courtyard that the children form their first acquaintance with the world of flowers and beauty.

Now-a-days, whenever the millionaires of our country build a new house, they imitate ugly Anglo-Indian models. Has our national sense of the artistic and the beautiful vanished also along with our political liberty? The other day at the Art-School Exhibition, how many models did we see of our rich Indian architecture, in a single corner column or arch of which, what grandeur, what exquisite skill and beauty lay revealed! There were one or two modern Persian gateways and windows, made of engraved tiles that seemed to me so wonderfully splendid and brilliant in colour. What wealth of hue there was in everything—in the carpets, the mats, the sarees, the frescoes, the paintings! How refreshing to the eye it all was.

These impressions crowded upon me and I thought—what a shame it is that our rich men should be dependent on the inferior art of other countries when we ourselves possess the skill to evolve such noble forms of beauty. And as I questioned myself as to why this should be, one of the reasons that struck me was that we do not

always get an opportunity of seeing all the art productions of our country collected in one place, that we have no art galleries as in Europe: that is why our eyes do not get any training, and our minds are not prepared to work for the introduction of Indian architecture and art manufactures, when building or furnishing a house. But this explanation did not seem sufficient. In one part of the museum in Calcutta, Eastern art in all its branches is permanently represented. And most of our wealthy men visit the Upper Provinces often, either as travellers or pilgrims. Are their eyes so very unnatural, that they alone remain unsatisfied with the artistic and architectural skill that may be seen throughout the whole length of those Provinces, even in the most humble house of Benares,—a skill which pleases the eye alike of the cultured European and the uncultured Indian public? Can it be that they alone are incapable of feeling the joy to which these visions of beauty give rise? Are their souls indeed so impoverished? Well, yes, it must be so. The West has not only conquered us physically, but she has enslaved our very souls, and that is where her real victory lies. As often as I have looked upon these beautifully decorated houses lining both sides of the streets in Benares, Allahabad, Agra or Delhi, I have said to myself, when shall I see one and all of these transferred to my native town, Calcutta—the whole of Bengal? With the introduction of this style of architecture, all the charms of houses divided into numerous quadrangles as of old—would again come into existence.

Dusk fell. I heard the mistress of a neighbouring house call out —"Bauma (daughter-in-law) light up the evening." Then a girl, with the veil over head and an earthen lamp in hand, passed through each dark room of the house "lighting up the evening," and the auspicious conch-shell was sounded.

I do not know the esoteric meaning of this custom of ours of 'lighting up the evening'—that remains to be ascertained. But I felt at that moment that some beautiful sentiment must have been associated with it. Is it a homage paid in honour of the blessed advent of the Evening Goddess? Is it a rite for dispelling the terrors of the approaching darkness, or is it because one cannot afford to keep a lamp burning in every room all right long that each chamber's longing for light is satisfied even for a moment?

After the evening was thus welcomed in, no more light was visible in any of the rooms. All was silent, all was dark. Inside this dark house the mistress went on performing her duties; in one of the rooms, sitting

near the door, the children had their meal by the help of the dim light coming from he distant street-lamp; only when the master of the house set down to his dinner was the room once more lit up, doubtless at the mistress's bidding. What I heard the next day touched my heart to overflowing—filled it with admiration. The father earns a small pittance somewhere. By rigid economy in other household matters he has made provision for the education of his sons in the local Presidency College. Hence even the boys and youths take their evening meal in the dark, but there is no want of light in the reading-room downstairs. This set me thinking. If the light of the street-lamp is enough to serve one's purpose, then this sacrifice, this daily exercise of self-control by these boys and young men, is exemplary conduct and worthy of imitation.

It recalled to my mind another occasion. We are accustomed to think that plain living and high thinking existed only in ancient India, that it has gone out of fashion now-a-days. But by a fortunate chance we became acquainted with the family of a learned pandit. On our first visit to the family, the mistress of the house cordially welcomed us, and spread out a mat and a *durree* for us to sit on; her brother-in-law's wife poured a little more oil on the antique earthen lamp and trimmed the wick in our honour. As a rule the ladies belonging to a Pandit's family are not illiterate, neither were these. After passing the time in pleasant conversation with them and listening to the more serious discourse of the Pundits, and stooping over the ancient lamp-lighted floor to acquaint ourselves with rare and valuable manuscripts, —we returned home with hearts full of gratification. The gorgeously illuminated mansions of princes fail to produce such pure and intense enjoyment.

Only did I feel depressed and ashamed here when our host and hostess brought some English chairs and tried to make us sit on them, and when they imagined themselves lowered in our estimation on account of not having modern lamps in their house. The shame was this, that a small community of the Hindus have strayed so far from the national centre, have lost their nationality to such an extent, material comfort and luxury have so thoroughly become the highest aim of their existence, that they have succeeded in creating the impression in the minds of the rest of their own people, that like the foreigners themselves, they could not be satisfied for a moment without these foreign paraphernalia of luxury.

Here another thing strikes one. Owing to the influence of Western civilisation we imbibe luxurious habits even before we begin

to earn. There is no national danger greater than this. Let the nation prosper first, then the desire for luxury might be entertained. If we become slaves to self-indulgence at the outset, all energy will forsake us for ever, and we shall eternally remain a nation of slaves in every sense of the term. I, therefore, think that until the whole country has become rich, until the average income of every man has considerably increased, until then, for any individual or community to take to an unnecessarily costly mode of living, would be utterly suicidal to our national life.

In every country and under all circumstances there will be self-indulgent natures, for wherever there is wealth there is luxury. But let that luxury be our own, let it take some cultured native form, let it foster our national spirit, let it preserve our distinctive individuality other nations, let it not be due to some uncontrollable impulse that is all I wish to say. The phrases—"eating roast fowl—Hindu fashion" or "going to England—Hindu fashion" are not really so ridiculous or contemptible as they appear to be. There is a certain deep significance in them, some real truth, some suggestion of an attempt to free ourselves from our moral or mental slavery to the West. Let us do what we will do, not, indeed, in blind imitation of the West but after thoroughly understanding and judging for ourselves, depending on our own strength, guided by our individual intellects and supported by our ancestral experience; —the seed of some such idea is latent in those expressions. When this seed germinates and grows into a tree, then will the bonds of our slavery also fall asunder:

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I was roused from sleep at break of day by the sound of singing. The bed that I had slept on that night was not a modern bed, equipped with the latest accessories of Western civilisation. I had gone to sleep in the enjoyment of a peacefulness hitherto unknown, on a bed spread on the tender lap of mother earth, and was awakened by the sound of singing. Have you ever experienced how sweet the notes of music are to the ear when the mind is in the borderland between consciousness and unconsciousness? The first words taken in by my awakened senses were these:—

'Brethren, arise! and let us sing
The praise of the Lord with a joyful ring.'

Whoever sang, did not pass on, but sang the second and third verses as well from the same spot. The sound came steadily from the same direction. Surprised, I peeped through the shutters of the

window. The night was not quite gone yet, and the gas-lamps were burning in the street. Three or four young men with coverings wrapped about their heads, were standing near the lamp-post just below our window, and were singing in the *Bhairoraga* keeping time with the *mandira*.

'Brethren, arise! and let us sing
The praise of the Lord with a joyful ring.'

A little girl and a naked boy comprised the audience. They were listening eagerly to the song from the doorsteps of a neighbouring house. The gas light fell on their upturned faces, one of the band of singers, breaking away from the chorus every now and then, said to them in a low voice, "go home, run away, you will catch cold." But neither the girl nor the boy budged an inch. When the song came to an end, the singers went on to the next house, and thus they went on singing from house to house. As I lay in bed, I could hear them singing from a long way off.

In the early dawn to-day, I felt the first heart-beats of the awakened Bengali town, in the vibrating note of the *Bhairo*. I was used to hearing this *rág* sing in the classic style both in Hindi and in Bengali. Up to the present time this morning-tune had been associated in my mind with the verses of a few particular songs,—and along with them there had always existed in my memory an august and exalted image of the assembly or the great hall, where the song had been sung and listened to. But to-day I formed an acquaintance with *Bhairo* under a different aspect. After the singers had passed on, various bits of *Bhairo* reached my ears from every awakened household in the neighbourhood. Some whistled it, some hummed the tune, some sang it out in proper form. That day's life opened out as it were under the spell of the *Bhairo rág*. Never had I met the *Bhairo* in such a graceful, familiar, domestic guise before.

In the afternoon the young men of the neighbourhood held a parley near our house. From the scraps of their conversation which reached my ears, I gathered that those who had sung in the morning were really householders, neither mendicants, nor ascetics. They belonged to this very quarter, were in fact some of them college-students, and some office-clerks. They had taken a vow to rouse people from sleep by thus singing the name of the Lord every morning. I was glad to learn that this was an 'experiment' set on foot by educated young men, and I felt that it was a move in the right direction.

SARALA DEVI GHOSAL.

VILLAGE CO-OPERATION.

In the Report of the Indian Famine Commission (1901), we find the following observations made:—

"We attach the highest importance to the establishment of some organisation or method whereby cultivators may obtain, without paying usurious rates of interest, and without being given undue facilities for incurring debt, the advances necessary for carrying on their business. Agriculture, like other industries, is supported on credit. 'The *Soukar* is as essential in the village as the ploughman' said the Secretary of the State, in reviewing the Report of the Deccan Riots Commission, and the statement is true in existing circumstances. But owing to various causes, the soukar or bania has, from being a help to agriculture, become in some places an incubus on it. The usurious rates of interest that he charges and the unfair advantage that he takes of the cultivator's necessities and ignorance, have over large areas, placed a burden of indebtedness on the cultivator which he cannot bear. Passed on from father to son, and continually swollen in the process by compound interest, this burden of indebtedness has become hereditary and retains the cultivating classes in poverty, *from which there is no escape that we can perceive, except through State assistance or the discovery of some other means by which the cultivator may get on easier terms the accommodation that he needs.* But even the fuller measure of State aid in the shape of *taqavi* loans, which we shall recommend, will go but a small way towards removing the difficulties of the whole class. Government cannot possibly finance all the cultivators of a district, still less of a province. In the establishment of Mutual Credit Associations lies a large hope for the future of agriculture in India."

The underlying idea in all Mutual Credit Associations is that a number of persons by combining together create a new and valuable security which none of them previously possessed as individuals. Now, these Credit Associations or Banks may be of two kinds—Town Banks *or* Village Banks; and further Money Banks *or* Corn Banks. The Banks which the Famine Commission advocate should be initially at least *Village* (Money) Banks. Says the Commissioners,—"Usually the members of a village bank should all be residents in the same village or in the same group of villages, provided that no one lives further than three or four miles from the bank's head-quarters." In the well-known book of Mr. H. Dupernex, I.C.S., entitled "People's Banks," the author lays down Specimen Rules for a Co-operative Town *Money* Bank, chiefly founded upon those in actual use in the Popular Bank of Milan. We

also find in the same book Speciman Rules for a Village (*Money*) Bank modelled on Mr. Wolff's Rules. But neither the Famine Commissioners. nor Mr. Dupernex gives us any Rules for the establishment and maintenance of Village *Corn* Banks. To Rai Parvati Sankar Chaudhury, Zemindar, Teota, belongs the credit of not only devising a scheme of Village Corn Banks but also of applying it to the needs of the village communities in his own Zemindaries. The principle of his scheme—(full details of which appear elsewhere over the author's name in this number of the journal) may be thus shortly given. In a good year, the villagers are asked to contribute paddy to the banks which stores it up and serves it out in bad years. When interest is demanded and the demand and the rate depend on the circumstances of his client, it is repaid, together with the principal in kind. Thus it has been *practically found* that by inducing a village community to keep a common stock of grain from year to year, and by profitably investing it in good year a reserve may be built up in each village which will enable the villagers to keep them going during a period of scarcity, and also to avoid a calamity through a sudden failure of crops. Thus, a Corn Bank started with a stock of fifty maunds of paddy contributed by 95 tenants from some eight villages. In the course of three years, the stock rose to 89 maunds including the interest calculated at about 25% on the paddy given out on the loan, there having been no new contribution. And so also in other cases. Such Grain Banks are managed by the villagers themselves and defaulters are dealt with not by appeals to the law but by social ostracism for such length of time as the Panchayet village elders might decide. The author of the scheme gives the name of *Dharma Golas* to these Co-operative Village Grain Banks.

The special advantages of banks established under the rules and regulations given below may be summed up as follows:—

1. A Dharma Gola can be established in each village from its own resources.

2. The contribution of each individual being only a small portion of the annual yield of paddy is not likely to cause any hardship.

3. The cost of its upkeep will not be heavy, as the posts of the Panchayets other than the Goladar will be honorary. Fit men for the management of the banks will be always available in the village:

4. There will be no scope for excessive borrowing from such banks, as there is in the case of money banks.

5. On the accumulation of a large stock of paddy in the Dharma Gola, old paddy will be exchanged for new paddy thus securing a profit

and preventing sickness caused by the consumption of new rice.

6. The Dharma Gola being the public property of the village, and no one having any right to sell the stock, a reserve stock of grain will always remain in the village.

7. The Dharma Golas, if established all over the country, will not only benefit the agricultural classes, but also the zemindars and the Government, as these last will be relieved of the necessity of making contributions to assist the people during famine and scarcity.

8. The initiative being taken by the villagers, and the Panchayets being appointed by them, they will take a special interest in these Dharma Golas, and will try by all means to maintain them on an efficient footing.

9. During periods of scarcity of food, the formidable difficulty presents itself of transporting grain to villages which are without railway or steamer communication. The establishment of these banks will solve the difficulty.

It has very often happened that grand projects requiring large amounts of money for their successful prosecution, originated by men of acknowledged position and authority and ushered in with due pomp and flourish, receive more attention from the public than simple projects under the management of village Panchayets, requiring for their due prosecution comparatively a small outlay, though the benefits from such projects may be shown to be far greater than those from the grander ones. Let us hope, however, that in the present case the interest of our countrymen and specially those of the smaller as well as the larger landholders of the country would be sufficiently roused and that they will try to understand the Rules given as under and establish Co-operative Corn Banks on their own estates.

EDITOR.

A SCHEME FOR THE INSTITUTION AND MAINTENANCE OF VILLAGE GRAIN BANKS.

1. A Dharma Gola or a Grain Bank may be established for one village or a group of contiguous villages.

2. At the instance of a Zemindar, or a leading man of the village, or a Government Officer, a general meeting of the people of the village or a group of contiguous villages, may be convened at which the object and the utility of the Dharma Gola will be explained, and the rules of the Dharma Gola will be read.

3. If the majority of the persons present at the meeting decide to establish a Dharma Gola for the village or the group of contiguous villages,

they shall elect five Panchayets or village elder from amongst themselves, and one "*Goladhyaksha*" or "*Goladar*" (Keeper of the Gola) from among the five Panchayets. The *Goladar* will be entrusted with the duty of keeping the accounts of the Dharma Gola. The posts of the Panchayets other than that of the *Goladar* will be honorary.

4. Persons who are opposed to the establishment of the Dharma Gola, and who are not likely to contribute paddy to the Dharma Gola, drunkards, persons with physical infirmities, and persons convicted of theft, &c., shall not be eligible as Panchayets. But those who are reputed to be honest and God-fearing, and those who are generally respected in the village, and have business capacities, are to be elected Panchayets.

5. The Panchayets on being thus elected shall prepare a list of the householders in the village or villages, and the quantity of culturable land which each of them possesses.

6. After the list is prepared, the Panchayets shall call another meeting of the villagers, and shall read before them the list, and if any valid objection is raised to the entries in the list, these shall be corrected, and the list finally passed. The villagers shall then discuss and fix the rate per bigha at which each householder is to contribute paddy to the Dharma Gola. If anyone is unable to contribute to the full quantity according to the rate, a compromise shall be made and a quantity fixed. The rate at which each individual shall contribute must not exceed ten seers per bigha. After the final list of contribution is settled, the villagers shall decide on the rates of interest respectively to be charged per maund of paddy, given away as a loan to a contributor and to a non-contributor, till the next crop.

The rates must not exceed the rates prevalent in the locality and must not exceed fifteen seers per maund for a contributor, and twenty seers for a non-contributor. The place where the Dharma Gola is to be located will also be decided on by this meeting. Particular care shall be taken in selecting the site, so as to avoid, as far as possible, all risk of loss by fire or robbery.

7. The rates of interest fixed at the meeting shall remain in force for the next three years, after which period the rates may be changed according to the circumstances and needs of the villagers, by the decision of majority of the villagers assembled in a meeting held for the purpose.

8. Within seven days of the date of the meeting provided for by rule 6, the Panchayets shall report to the Zemindar, or to the local Kutchery, the resolution of the villagers to establish a Dharma Gola, and as soon as practicable, also the place where it will be established, the name of the Panchayets, the list of contributors, and the quantity of paddy each will contribute.

9. The Panchayets having reported the matter as provided for in rule 8, shall proceed to erect the Dharma Gola, the cost of which as a rule

will be contributed by the Zemindar. If the Zemindar refuses to contribute such cost, the villagers shall raise a subscription in money for the purpose, and begin the collection of paddy. If the Gola is not ready, they may store the paddy in the house of one of the Panchayets or of a substantial man of the village.

10. Each Gola shall be locked with two substantial locks. The key of one of these locks shall remain in charge of the *Goladar*, and the key of the other lock shall remain in charge of one of the four Panchayets. The *Goladar* shall be responsible for the safe custody of the stock, but the other Panchayets shall be responsible to the villagers for the safety of the Golas.

11. The Panchayets shall collect the quantity of paddy apportioned to each householder without any *zulum*, and in special cases may collect it in two or three instalments. Those who are not willing to pay in kind, may pay to the Panchayets the market-value of their contributions. The Panchayets shall purchase the paddy immediately, to avoid loss in consequence of fluctuations of price in the market.

12. If the quantity of paddy collected for the Dharma Gola in the first year is found to be insignificant, the Panchayet shall call a meeting of the villagers immediately before the next harvest, and induce them to subscribe a further quantity of paddy. The case of the defaulters shall also be brought forward at this meeting with a view to realise the arrears.

13. The *Goladar* shall enter in the *amdani khata*, the name, the father's name, and the place of residence of each contributor, and the quantity of paddy contributed by each individual.

14. When a Dharma Gola has been established for a certain village or villages, all persons in the village or villages shall have a right to be present at all meetings held in connexion with it; but when it will be necessary to decide a question by a majority of votes, those villagers only who are contributors, or are heirs or executors of such contributors shall have the right to vote. The rest shall have no power to vote.

15. The following *khatas* (Books and Ledgers) are to be kept in connection with the Dharma Golas :—

1. The Itihas khata.
2. The Niyamabali khata.
3. The Amdani khata.
4. The Jamakharach khata.
5. The Hatchita khata.
6. The Khatiani khata.
7. The Nikashi khata.
8. The Mantabya khata.

RAI PARVATI SANKARA CHAUDHURI.

[*To be concluded.*]

RELIGION: ITS TRUE SCOPE AND METHODS.

Religion, as is manifest from the derivation of the term (*re*, back, *ligo* to, bind), is that which *binds* one *back* to the origin or the fountain-head. What is the origin or the source? What is it at whose decree as it were the mind thinks, the eyes see and nature lives? That which cannot be perceived by the mind, the eyes and other organs of sense, but makes the mind, the eyes, etc., speed to their work is Brahman. Brahman cannot be the object of perception or thought. Mind and speech turn back from it in dismay.

A pair of tongs can catch almost anything else, but how can it turn back and grasp the very fingers which hold it? So the *mind* or intellect can in no wise be expected to know the great unknowable which is its very source.

Religion, then, as distinguished from theology and also divested of its dogmatic excrescences is essentially a mysterious process by which the mind or intellect reaches back and loses itself in the inscrutable source, the Great Beyond.

The devout Christian or the pious Mussulmán when offering prayers, holds his hands aloft, showing that it is the Above, the *Beyond*, the Incomprehensible which he is striving to approach. The Hindu, when immersed in Bhakti or lost in Samâdhi gets his eyes naturally shut, which clearly indicates that it is the Within, the Invisible, the *Beyond*, in which his mind or intellect is being merged. Not "*a* religion" but "*the* religion," which is the soul of Islàm, Hinduism or Christianity, is, strictly speaking, that indescribable realisation of the unknowable, where all distinctions of caste, colour and creed, all dogmas and theories, the body and mind, time, space and causality together with all that is contained therein, this world and all other imaginable worlds are washed off clean into WHAT no words can reach. Is it mystifying? Not at all. Let any person of real religious experience refer to his moments of what is called communion and assert whether any idea of God, not to say of himself or the world, subsists there? In true realisation there is no meum and teum, no trace of subject and object. Any systematic attempt leading to the goal above pointed out is *religious*.

It may be asked what is the need of aiming at such a mystical end? Before answering this question let us examine in what way the chief ideals and objects of attraction for man—knowledge, heroism love and pleasure—are commonly reached.

(1). *Knowledge* is commonly understood to be the amount of information acquired through outside means such as books or teachers; and a man is taken to be of scholarly attainments if he has stuffed his brains with learned classics that have had their day. It is true that the achievements of the past should not be discarded and are worth a careful study; but true *education* begins only when a man turns from all external aids to the Infinity Within and becomes as it were a natural source of original Knowledge or a spring of original ideas. Newton and other apostles of truth pour forth useful discoveries—who taught them? From what books did they learn all that which superseded all foregone researches? Certainly, the education of the benefactors of mankind consisted in unconsciously approaching that Real Self by which alone "all that is unheard-of is heard, all unknown is known, all unthought-of is thought." Light shines out through a man when his mind is *concentrated* within. That is to say, when a man restrains the outflow of his out-going energies and so gets the mastery of them; when in fact he may be said to have lost his little-self; when his body, mind, etc., may be said to have disappeared to him, as it were, and when a state is reached in which the world, the ego and all is merged in the Great Unknowable; it is then and then alone, that the deepest knowledge is reached, that the origin of things is unveiled. But even when the process of concentration has not advanced far enough, truths will have descended in showers, discoveries, will have cropped up, knowledge would have begun to flow, and the secrets of Nature are unfolded. Thus, all truths, discoveries, inventions, designs, theories and the like are the natural outcome of a kind of transcendental *yoga* or *religion* as above defined. When the poet is once in that super-conscious state, sublime thoughts and noble ideas must proceed from him. The mathematician or the philosopher has simply to forego for a time,—to bury for a season, his (apparent) self, and wonderful solutions of the most intricate problems must occur to him. After a problem is solved or a discovery made, the apparent "I" wants to get the credit for it, but the truth is that so long as this copy-righting or patenting "I", was making *its* existence felt, no discovery could be made; it was only when the "I" has renounced itself and the idea of religion as above defined has been realised, that success and knowledge begin to well up.

(2). Let us watch a hero in the battle-field. He is mad with super-abundance of power, thousands count nothing to him, his own body has no appearance of reality for him. He is no longer the body or mind and the world is no more existent, the spirits are up and every

hair of his body is thundering out his immersion in the Great Beyond which lies at the back of the body, mind and the whole world. Thus, to the spectators indomitable courage, and heroic power are like lightning flash of the Unknowable into the phenomenal world; but in regard to the subject himself, undaunted Bravery is unconsciously no more than religion, that is, absorption in the Power behind the scenes.

(3). How beloved is the word *love*. Everybody must love a lover, as the saying goes. To the pure Hindu in most instances love (bhakti) is the only desideratum. There are some noble souls who would gladly sacrifice anything and everything for the sake of divine love. Let us try to discover the fountain-head of *love*.

The ideal *bhaktas*, like Chaitanya Mahaprabhu, are distinguished for their unusual trances, state of or rapture, ecstasy and of prayer; and it goes without saying that divine love raised to such a pitch means the transcending of all ideas of shame, of conformity to the usages of the world; means, in short, all exemption from the bondage of little-self. Even those who have been blessed with an experience of love directed towards lower objects will testify to the apparent paradox that highest *love* transcends the idea of beloved and lover. Thus, undeniably is *love* identical with *religion in the above sense.*

(4). The very word *ecstasy* (*e*, out and *sto.*, stand) shows that HAPPINESS, no matter under what conditions or circumstances experienced, is owes its origin to a state in which one may be said to be standing, so to say, outside the body, mind and the world. Referring to one's own experiences, any person conld see the oneness of happiness and *freedom*, (however temporary), from all duality. The longed-for object and the wooing subject welded into one, constitute joy. Thus, manifestly the very nature of happiness is RELIGION.

These observations clearly prove that all the noble and desirable ends of life are reached only when the intellect and along with it the whole of the objective world melt into the Unknowable Beyond.

But is not this getting a dip into the Universal Essence much in the same manner as one would consult a dictionary?

Sense-derived pleasures, in their essence, are, strictly speaking, *religion*; in the sense of absorption, however temporary, however evanescent. But the mode of realising religion involved in them, may be compared to getting a peep into the Darbar through the grating of a dirty gutter. They resemble a flash of lightning which, though identical in its nature with broad day-light, does far more harm than good.

Is it not possible to enter the Blissful Darbar by a lawful portal? Cannot the midnight lightning flash be made continuous; to become the everlasting bright day? In an instinctive desire of that nature lies the necessity of religion in its ordinary sense.

Strenuous struggle to that effect is worth our while, and those who poopooh the importance of religion are despite themselves engaged in suicidal efforts.

All speculative attempts of Philosophy or Science to pry into the Ineffable are futile. Time, space and causality contemplated either from the subjective or the objective point of view defy all efforts to discover their nature. The ultimate nature of Matter, Motion, Force or Energy present insurmountable difficulties to the inquiring mind. All the *dogmatic* theologies of the world have either the brand of theory or of superstition stamped on their face. One system of philosophy is exploded by another; this, again, spares no pains to return the compliment. From this it is apparent that the interior of our nature will for ever remain a mystery to the mind and that it is not given to mere human *intellect* to sound the depths of the Cosmos.

Then, should we give up all search into the Underlying Absolute; as a forlorn hope? Shall we devote our energies and powers exclusively to practical discoveries and inventions like the railway, the telegraph or the gunpowder? Even such toys bring no peace or rest. The very thirst for more and more that invariably accompanies every new possession proclaims the vanity of earthly ambitions.

These considerations land us in utter despair. But despair not, say the Upanishads. For the deep longing for rest and peace and bliss is not to be frustrated. However obstinately we may shut our eyes to the Reality, in moments of happy isolation, the query forces itself on us: "Whence emanates all this phenomenon? Why am I? What do the earth and sky signify?"

The Veda says that this ingrained question must necessarily find its solution, *though not with the help of philosophy, science, or earthly love.* The question itself being included in the *anirvachniya Máyá* (insoluble riddle of the whole world) forms a part of the indescribable mystery it wants to unravel. As an eagle cannot outsoar the atmosphere in which it floats, so *thought cannot transcend the sphere of limitation.* So long as the question and the objects questioned about remain, the prison walls of *Mayá* are there, and there can be no rising above the Appearances. The goal can be reached by special culture and when reached must *dissolve altogether the question as well as the answer,*

The Vedanta aims at this goal, independently of the enslaving process connected with ordinary pleasures, love and the like. Being lost in such vision one is even as the Brahman, *past all limitations, infinite, unspeakable, unknowable by the mind or intellect.* A man who gets even a glimpse of such realisation stands above fear and anxiety. Unshakeable strength of character is the necessary outcome of this realisation. SUCH REALISATION IS TRUE RELIGION. All else is limitation and tainted with the errors born of limitation.

RAMA TIRTHA SWAMI.

WIRELESS TELEGRAPHY :—II.*

As Illustrative of the Progress of Science and its Applications.

[BY DR. MAHENDRA LAL SIRCAR, M.D., D.L., C.I.E.]

[*Continued from page 367, Vol. V.*]

I now come to the system of wireless telegraphy which is just now attracting the greatest public attention, and deservedly, because it has achieved greater results, having bridged over longer distances, than the system already considered. It goes by the name of the Marconi system, after the young Italian scientist, Signor Guglielmo Marconi. He is only twenty-six years of age. He was an assiduous pupil of Prof. Righi of Bologna. Marconi, I should tell you, is more an ingenious inventor than a discoverer. He is the discoverer, and that by the purest accident, of only one of the many facts on which he has so ingeniously founded his system. These facts are (1) the peculiar property of the electric spark in generating waves in the ether which have very nearly the same frequency and speed as those of light; (2) the peculiar property of powders or filings of electric conductors in offering almost infinite resistance to the passage of an electric current; (3) the influence of the spark waves on the powders in reducing this resistance; (4) the influence of mechanical shaking in causing the old resistance to return; and (5) the property of a long wire projected high into the atmosphere to catch the electric waves coming from a distance.

For the discovery of (1) we are indebted to the late lamented German physicist, Heinrich Hertz, a pupil of the late Von Helmholtz, and Professor of Physics in the University of Bonn. For the discovery of (2), (3), and (4) we are indebted to Mr. Alfred Varley so far back as 1866, to Prof. Calzecchi-Onesti of Italy in 1884-85, and to Prof. Edouard Branly of the Catholic University of France in 1891. For the discovery of (5), credit may be given to Marconi.

[* The articles on the subject of *Wireless Telegraphy* give the substance of the introductory lecture delivered by Dr. Mahendra Lal Sircar at the opening of the Session, 1900—01, of the Indian Association for the Cultivation of Science, Calcutta, on July 2, 1900.—*Ed. Dawn.*]

Mr. Varly, "when experimenting with electric currents of varying degrees of tension, observed the very great resistance which a loose mass of *powder* of conducting matter opposed to the passage of electricity of moderate tension; he found with a tension of 50 Daniell cells electricity did not pass through a loose mass of finely-divided black lead or wood charcoal. When the tension was increased to two or three hundred cells *the particles arranged themselves by electric attraction*, making good electrical contact, and formed a bridge by which the electricity freely passed. With a tension of six or seven hundred cells the electricity was found to pass through a considerable interval of the dust met with in rooms, which consists chiefly of silica and alumina, with more or less organic or earthy matters." This led him to construct what he called the "lightning bridge" or protector, and he tells us, "the reason why a powder consisting entirely of conducting matter cannot be safely employed is, that although it opposes a practically infinite resistance to the passage of electricity of the tension of ordinary working currents, when a high tension discharge occurs, *the particles under the influence of the discharge generally arranged themselves so closely* as to make a conducting connection between the two points of the lightning bridge." So far in the abstract of the paper submitted by Mr. Varley to the British Association for the Advancement of Science at its Liverpool meeting in 1870. Mr. Fahie in his *History of Wireless Telegraphy* quotes, immediately after the above passage, the following sentence which is not in the abstract, but probably existed in the original paper: "This (*i.e.*, the close arrangement of the particles) can be experimentally demonstrated by allowing the secondary currents developed by a Ruhmkorff's coil *to spark through a loose mass of black lead.*"

I have repeated Mr. Varley's experiment and found that increase of electromotive force of a current does overcome the resistance of metallic filings. Thus, when a current from two or three Leclanché cells would not pass through a certain quantity of filings, a current from as many big bichromate cells would.

No notice seems to have been taken of this discovery by Varley of the peculiar property of the powders of conductors till 1884 when, as we are told by Mr. Fahie, "Prof. Calzecchi-Onesti found that copper filings heaped between two plates of brass were conductors or non-conductors according to the degree of heaping, and that in the latter case they could be made conductors under the influence of induction. ... He repeated this experiment with various powders or filings of metal, and ended by showing that *some of them became conductors under the influence of a very feeble spark, while others became so only after being subjected to strong sparks as from an electric machine.*"

We may repeat Calzecchi's experiment with this slight modification that instead of placing the heap of metallic filings between two metal plates, I

place it between two ends of two thick wires thurst into this glass tube, the other ends of the wires being outside the tube, which I connect one with one extremity of the galvanometer and the other with the negative pole of a battery. I connect one end of this telephone with the other extremity of the galvanometer, and the other end with the positive pole of the battery. Then I take a glass cup filled with mercury, connecting one extremity of a wire with the wire joining the telephone and the galvanometer, I dip the other extremity into the mercury. I take another wire, and connect one of its extremities with the negative pole of the battery, the other extremity I can, if I like, dip into the mercury and thus make a short circuit between the battery and the telephone. Before I make this short circuit I wish you to observe that there is no deflection of the galvanometer needle ; showing that no current, at least no current of sufficient strength to affect the needle, is passing through the metal filings. Now apply your ear to the telephone and direct your eye to the galvanometer while I make the short circuit. You hear a tick in the telephone and just a tremor in the galvanometer needle. I break the circuit, and you hear a louder tick in the telephone and see a marked deflection of the needle. In the dark, sparks in the mercury at the points of make and break may be seen.

What is the interpretation of the results of this experiment ? That a current has passed through the metallic filings after the make and break of the short circuit, whereas before, none or only an infinitesimally feeble one was passing, there can be no doubt. What has overcome the resistance of the filings, and how ? Calzecchi says it is induction which has done this. So far he is right, because, as Faraday had demonstrated that there is self-induction on every make and break, and that the self-induction on make opposes and that on break conspires with the original current. And this harmonizes with the facts observed. There was a slight tremor of the galvanometer on making, but a marked deflection on breaking the short circuit.

Could the sparks at make and break of the short circuit have any share in overcoming the resistance ? It is very difficult to answer this question from the aforesaid experiment alone, for even feeble sparks without the agency of self-induction are enough to do this, as Calzecchi himself had observed, and as I shall show you presently. But I have made an experiment which shows positively that the sparks could have no share in the production of the phenomenon. I used very long wires for connecting the telephone and the galvanometer, and the galvanometer and the tube containing the filings, so that I could remove the tube to a distance from the sparks where the influence of the latter or even of much more powerful sparks could not reach, and yet the effect took place,—the deflection was as marked as in the previous experiment, showing that the resistance was overcome, but not by the sparks.

Having satisfied myself that the sparks had no, or scarcely any, appreciable, influence in overcoming the resistance of the filings, I next made use of very short wires for the circuit and dispensed with the telephone altogether so as to reduce induction to as low a quantity as possible, and yet on breaking the circuit there was deflection of the galvanometer, scarcely less than in former experiments. I dispensed with the mercury, and effected make and break by simply joining and separating the wires which had dipped into the mercury, with the same result. Hence, I am forced to conclude that there must be something more or something else than induction (*i. e.*, self-induction) to account for the remakable phenomenon. What that something is can be determined only by experiment. I am making experiments with this end in view, and it remains to see how far I shall succeed.

Calzecchi-Onesti's discovery shared the same fate as that of Varley. They both remained unnoticed till 1890, when Prof. Edouard Branly published the results of an extensive series of experiments on the variations of resistance of metallic filings, or powders of conducting substances, under elec tric and other influences. Whether Calzecchi-Onesti made his experiments in ignorance of those of Varley, and whether Branly made his experiments without any knowledge of those of Varley and Calzecchi-Onesti, I cannot tell, as neither of them, so far as I can ascertain, makes any reference to what was done before. Most probably they worked independently.

Branly, while confirming the facts observed by Varley and Calzecchi-Onesti, has made two discoveries, one of which has made Wireless Telegraphy possible, and the other may have a most important bearing on it in the future.

The first is the discovery of the restoration of the original resistance, or which is the same thing, the destruction of the increased conductivity, by various influences, especially by mechanical shaking. "The conductivity caused by the various electrical influences," says Prof. Branly, "lasts sometimes for a long period (twenty-four hours or more), but it is always possible to make it rapidly disappear, particularly by a shock. The majority of substances tested showed an increase of resistance on being shaken previous to being submitted to any special electrical influences but after having been influenced the effect of the shock is much more marked."

I dare say you see the importance of this discovery in connection with our subject. Metallic filings under a most simple arrangement can be made to detect the presence or appreciate the influence of an electric spark at a distance and without any metallic connection with it. And that detection or appreciation is shown by the passage through their mass of an electric current which could not pass before the occurrence of the spark. Remarkable as this fact is, it could not serve any useful purpose, but for the other fact discovered by Branly that this power of detection or appreciation could be destroyed by the simple mechanical shaking of the powder. Thus we

can at will cause a current to pass through a mass of metal filings, and can equally at will, immediately after, prevent it from passing. In other words, we can at will make and break a current. This is all that is required for purposes of telegraphy. And when this can be effected by the production of sparks at a distance, the problem of wireless telegraphy for at least short distances is solved.

All that is necessary is to have at the sending station an arrangement for the production of intermittent sparks, and at the receiving station a pinch of filings of some metal suitably enclosed and connected with one pole of a battery at one end, and at the other with one terminal of a Morse receiver (either a sounder or a recorder), the remaining pole of the battery being connected with the other terminal of the Morse receiver. There is in addition an electro-magnetic hammer which is so connected with the battery that it automatically gives a shake or tap to the filings after they have become conductive by virtue of the spark at the sending station.

Sparks may be produced by any kind of friction machine or by a Ruhmcorff's coil or Inductorium. As it is not possible to work friction machines in all weathers, the Inductorium has been preferred, and is now exclusively used. Sparks between the ordinary terminals of the inductorium are enough, but experience, that is repeated and varied experimentation, has shown the utility of connecting these terminals with an apparatus which has been devised by Prof. Righi, and which is called after him as the Righi exciter or radiator. Here is such a radiator which, as you see, consists of two solid well polished metallic balls of about 4½ inches in diameter and placed in this oil-tight case of ebonite so that they are about one twenty-fifth of an inch apart and half their opposing surfaces immersed in some thick oil, such as vaseline-oil, thickened with vaseline, the other halves being outside the ebonite case.

You see two other solid polished metal spheres, but much smaller, about an inch or a little more in diameter, so placed that they are in a line with the larger spheres, one on either side, but insulated and separated from them. It is with these smaller spheres that the terminals of the inductorium are connected. The distances between the smaller and the opposed larger spheres must be equal, but adjustable, that is, may be made more or less. It has been found that the capacity of the inductorium remaining the same, the larger the spheres, and the greater the distances between the larger and the smaller, the higher the potential of the spark. As it is from the sparks that electric waves originate, the energy of these waves must correspond to the potential or intensity of the sparks. Hence the higher this potential, the greater must be the distance at which these waves will be felt.

At the receiving station the arrangement is much more complicated than at the sending station. The chief things are of course, (1) the small quan-

tity of metal filings or powder suitably enclosed in a glass tube, the two ends of the filings in contact with rods of metal exactly fitting into the tube, the outer extremity of one rod being connected with one pole of (2) a battery, the outer extremity of the other rod being connected with one terminal of (3) a galvanometer, an electric bell, or a Morse apparatus, the other terminal (of the galvanometer, bell, or Morse apparatus) being connected with the other pole of the battery. As this arranged, no current passes through the filings, and consequently there is no deflection of the galvanometer, no ringing of the bell, and no active of the Morse apparatus. But as soon as a spark occurs at the radiator, instantaneously the needle will be deflected, or the bell will ring, or a sound or a dot will be produced at the Morse, according as the Galvanometer, or the bell, or the Morse will be in connection with the filings and the battery. These phenomena will cease at once a shake is given to the filings. A second spark will give rise to the same effects.

What I have just described to you constitutes the essence of the Marconi System of Wireless Telegraphy. And any one can verify the results arrived at with the simplest and rudest instruments. But a number of details had to be worked out before the arrangements could be successfully employed for purposes of actual telegraphy, and especially for telegraphy at long distances.

MAHENDRA LAL SIRCAR.

THE SCHEME OF SALVATION UNDER THE NYAYA SYSTEM OF PHILOSOPHY.—I.

The aim of the Nyaya, like every other system of Hindu Philosophy is the attainment of perfection or bliss, through knowledge. (Sutra I). But to have knowledge in a complete and systematic fashion, it is requisite that the individual should know or should be capable of organising his knowledge in reference to the *sixteen great heads of topics or discussions* (पदार्थ) । These are enumerated by गौतम in the following Sutra or aphorism :—

प्रमाण—प्रमेय—संशय—प्रयोजन—दृष्टान्त—सिद्धान्त—अवयव—तर्क,—निर्णय—वाद—जल्प—वितण्डा,— हेत्वाभास—छल—जाति—निग्रहस्थानानां तत्त्वज्ञानात्—निःश्रेयसाधिगमः ।

(1). Proof, (प्रमाण) ।
(2). Objects of proof, (प्रमेय) ।
(3). Doubt, (संशय) ।
(4). Motive, (प्रयोजन) ।
(5). The illustration or example for discussion a case, (दृष्टान्त) ।
(6). The final established doctrine, (सिद्धान्त) ।

(7). Enumeration of the five members of the established doctrine (अवयव)।

(8). Confirmatory argument, (तर्क)।

(9). The conclusive or the defined judgment, (निर्णय)।

(10). Fair objection, (वाद)।

(11). Controversy or wrangling, (जल्प)।

(12). Deceptive counter-argument or cavilling, (वितण्डा)।

(13). Apparent reason or sophism; fallacious reasoning, (हेत्वाभास)।

(14). Fraud, ruse, or wilfully deceptive argument, (छल)।

(15). Futile argument or self-contradictory counter-argument, (जाति)।

(16). Conclusive refutation or bringing the discussion to a victorious ending, (निग्रहस्थान)।

INSPECTION OF THESE AT ONCE SHOWS THAT THEY REPRESENT STAGES IN DIALECTIC, *i.e.*, THE PROCESS OF CLEARING UP KNOWLEDGE BY DISCUSSION.

Goutama's System is divided into five parts (आह्निक)। The first contains 61 Sutras, giving the name and brief description of the 16 topics (above-mentioned) of his System. The second contains 71 Sutras; the third 78; the fourth, 50; and the fifth 25.

After the enumeration of the 16 topics are given the *kinds of proof* (प्रमाण) described as four in number. (1) Sense-perception (प्रत्यक्ष); (2) Inference (अनुमान)—(*a*) either from cause to effect (पूर्ववत्)—*i.e.*, where the cause suggests the effect, the clouds suggesting rain; (*b*) or from effect to cause (शेषवत्) where effect proves the cause, the child proving the previous existence of the father; (*c*) or from community of nature (सामान्यतोदृष्ट)।—which is in a *wide* sense analogy—as where there may be no relation of cause and effect, but there may be a certain point of agreement (साधर्म्य)।

Ex.—If one cannot go to another place without travelling, nobody else can go there without *travelling*. The third kind of proof after sense-perception and inference is उपमान or comparison or analogy in a *stricter* significance. The fourth kind of proof is शब्द or verbal authority, *i.e.*, authoritative communication and tradition. After the four kinds of proof come the प्रमेय or the objects of proof, *i.e.*, the things about which proof may be exercised—things to be inquired or investigated into, to be thought over, under which a twelve-fold division is given by Goutama and enlarged in endless detail by commentators who introduce thereunder much of Kanada's or the Vaisesekha System. The twelve-fold division of प्रमेय (or objects of proof) may be thus given:—

(1). The Atma, (आत्मा) ।

(2). The body, (शरीर) ।

(3). The senses, (इन्द्रिय) ।

(4). Objects of the senses, (अर्थ) ।

(5). The determining intellect, the source of will-power, (निश्चयात्मिका बुद्धि) ।

(6). Mind, the organ of will-power, (मनस्) ।

(7). Activity (प्रवृत्ति), subdivided into physical (कायिक), verbal (वाचिक), and mental (मानसिक) ।

(8). Faults (दोष)—of three kinds—Conscious attachment (राग), conscious aversion (द्वेष); and blind action, obscuration of thought powers, (मोह) ।

(9). Transmigration, (प्रेत्यभाव) ।

(10). Result or fruition, (फल) ।

(11). Pain, (दुःख) ।

(12). Endless bliss or salvation, (अपवर्ग) ।

After the objects of proof have been given, Goutama describes the progress from *doubt* (संशय) which first calls for reasoning or proof through motive (प्रयोजन) to position of the problem in the form of an example or case (दृष्टान्त) and the general assertion or doctrine as having valid grounds. (सिद्धान्त) । The analysis of the grounds of assertion is then given and here we have what corresponds more particularly to the Syllogism. Five members (अवयव) and the Syllogism are stated.

(1). The thesis or *proposition* to be proved (प्रतिज्ञा): *Ex. This mountain is fiery.*

(2). The reason or *intermediate ground* (हेतु or लिङ्ग) *because it smokes* by which the *subject* of the proposition पक्ष,—the mountain, or the mountain smokes—is linked on to an *explanatory principle* (= साध्य, *whatever smokes is fiery.*)

[*N.B.*—It would appear from the above that that the *hethu* or *linga* is the middle term, the *sadhya* is the major, and the *paksha* is the minor term].

(3). An *example* connected with the explanatory principle (उदाहरण, the kitchen).

(4). Application of the explanatory principle to the present case, *i.e.*, Syllogistic conclusion—(उपनय, *therefore this mountain is fiery*).

(5). The statement of the conclusion as following from the application or the final Q. E. D.—[निगमन,—the mountain, then is fiery, because it smokes.]

After enumerating the five members (अवयव), Goutama proceeds to deal with तर्क (confirmatory argument). This *tarka* is a sort of *reductio-ad-absurdum* sort of argument. Thus, if it were said that the mountain is *not* fiery, then the argument would be adduced, "but the mountain smokes, and what is not fiery does not smoke." In other words, the negation of the ground is shown to fail in explaining the *observed* fact. Whence in this way, the conclusion being confirmed in also the negative way, it is defined in an absolute and definitive form (निर्णय). The remaining seven topics or heads of discussion (पदार्थः) are then concerned with the discussion which may arise when an opponent brings forward objections to the conclusion. This he must do by positing the antithesis (वाद), whereupon issue may be joined (जल्प, controversy). Should the adversary be unable to establish the antithesis (वाद, as before), he may resort to bringing forward arguments illogically arranged and devoid of force (वितण्डा); which soon leads to the employment of sophisms, or merely apparent arguments (हेत्वाभास); or even to ruses, *i e.*, wilfully deceptive arguments (छल) Then follow many, futile, *i.e.*, irrelevant arguments (जाति). It will be seen that under the above several topics Goutama discusses various well-known forms of *fallacy* of deductive logic. The exposure of all these fallacies completes the discomfiture of the opponent and reduces him to silence (निग्रहस्थान).

With this battery of reasoning Goutama has proved that the root of all evil is in *bad desires* (अशुभवासना) created by *false notions* (संस्कार). Bad desires again have the residue or the unenjoyed portion of past *karma* as their source of life. This residue creates the three kinds of activity to do a *karma*,—*i.e.*, good or bad action; so as to compel a person to reap in the present life pleasure or pain as the fruit of past actions which had not been in the past life exhausted by means of such enjoyment or suffering. Then, Goutama proceeds to explain that although good actions (पुण्य) and the enjoyment of their fruits bring forth some amount of enjoyment, yet the duration of this enjoyment or happiness is after all limited by the character and quantity of good *karma* whose fruits had not been hitherto reaped. We will continue this portion of our subject in another issue.

M. A.

THE DAWN

एकरूपेण ह्यवस्थितो योऽर्थः स परमार्थः।

THAT WHICH IS EVER-PERMANENT IN ONE MODE OF BEING IS THE TRUTH.—SANKARA.

WHOLE No. LXII. } CALCUTTA, SEPTEMBER, 1902. { No. 2. VOL. VI.

MISERY.

I.

O Misery ! Thou darkening light
That lead'st the groping human soul
Through the helpless gloom of cruel plight
On the sure walks to life's goal !

II.

That send'st a current sure and swift
Making for the happy shore
Beneath the storm-toss'd sluggish rift
To outer gaze in troubles sore !

III.

Full oft hast thou thy deadly shade
Cast upon life's tender growth ;
And caused all vital lights to fade,
That of its own sap, free of both,

IV.

Grow it to its destined height.
O Goddess benign ! on me shed
Of purging pains thy virtuous light
To see within my God o'erhead.

Radhakumud Mookerjee.

THE OTHER SIDE OF WESTERN CIVILISATION.—II. —THE DRINK PROBLEM OR THE GROWTH OF LICENSED PUBLIC HOUSES IN ENGLAND.

BY

JOSEPH ROWNTREE,

(Joint Author of "The Temperance Problem and Social Reform," &c.)

[N.B.—We are indebted to the courtesy of the Northern Newspaper Syndicate, U. S. A., for the present article.—Editor, DAWN.]

THE PRESENT POSITION.

Public opinion is moving so rapidly upon the whole question of Drink Reform, that it may be well at the outset to consider where we stand to-day with regard to it.

The five following propositions will, I believe, be now generally accepted by men of all parties who have given serious thought to the question:

(1) That the number of licensed premises in the country is too great.

(2) That to make a gift of new licences, with the enormous monopoly profits which they often carry, is indefensible.

(3) That the menace exercised by the Trade on the municipal and national life of England is a grave peril, and that no measure of reform will meet the necessities of the case which does not deal with this menace.

(4) That a prohibitive policy, whether carried out through the agency of Local Option, or in any other way, cannot be a universal remedy. That while such a policy might be operative in many rural districts, and in some of the wards or suburbs of towns, it will not be largely applied to the great urban centres within any period which practical reformers care to contemplate.

(5) That the great volume of trade which would inevitably remain after Local Option had been enacted, and after

a Statutory reduction in the number of public-houses had been carried out, should be placed under a control far more effective than that which now obtains.

I incline to think that a further proposition would also be accepted, *viz.*:—that the present *per capita* consumption of alcohol in this country is excessive, and ought to be largely reduced.

[It has been conclusively shown that the average family expenditure of the working classes in this country upon drink cannot be less than six shillings per week—a sum that is probably more than one-sixth of their average family income. This expenditure clearly leaves no sufficient margin for the maintenance of that standard of physical and mental efficiency which is now seen to be of primary importance in the industrial competition of nations. The *per capita* consumption of absolute alcohol in the United States is barely one-half—48 per cent.—of the *per capita* consumption in the United Kingdom.]

NEW LINES OF PROGRESS.

Another practical conclusion of the first importance, round which a large body of influential opinion is rapidly gathering, is well brought out in the following quotation from an address on Public House Licences, recently given by Sir William H. Houldsworth, Bart., M.P., to the Manchester Statistical Society. It is specially noticeable as coming from the President of the Conservative and Unionist Temperance Association. At the close of his historical survey, Sir William Houldsworth said:—

"What, then, is the moral to be drawn from the past? It seems to me to be that the licensing system (though I hope it may be improved, and it much needs it), can never but very imperfectly fulfil the objects for which it exists. The inevitable antagonism between the natural and legitimate aspirations

of the Trade to extend itself, and the aim of the Licensing System to prevent extension and discourage consumption can never be overcome. *The problem can never be solved, and no final settlement satisfactory to the two sides can ever be reached on the old lines.* . . But the only way, in my opinion, that a tolerable and final settlement can ever be arrived at will be by gradually making the trader in intoxicating liquors and the controlling authority allies, and not opponents. *This might be done by eliminating all motives of private profit, and giving to the representatives of the community the management and control of all licensed houses as a trust on behalf of the public.*"

Another indication of the same trend of opinion was given by Sir Robert Reid, M.P., specially significant from the words occurring in his presidential address at the annual meeting of the United Kingdom Alliance in October, 1901. "My own opinion," he said, "is that, supplemental to any addition to Local Option, localities ought to have the right to insist that the element of private gain should be eliminated from all places where liquor is sold." Passages of this kind might be greatly multiplied from men of influence in Church and State. Nor can this excite surprise. For if the present consumption of alcohol in this country is excessive and ought to be largely reduced, no policy can be more mistaken than that of continuing the sale of drink in the hands of those who, as private traders, will push its sale to the uttermost.

To look at still another point. There has been a remarkable and widespread recognition of the necessity for bringing constructive as well as restrictive agencies to bear on the problem of intemperance. Not only in this country, but in Australia, in New Zealand and in South Africa, has the need for counteracting agencies been acknowledged. In the United States, again the need for these agencies has been so fully recognised that at the request of the "Committee of Fifty," (a body including some of the foremost social writers and thinkers in the States) Mr. Raymond Calkins published in 1901 a volume of 400 pages devoted to this aspect of the question.

It is entitled "Substitutes for the Saloon," [*published by Houghton, Mefflin and Company, Boston and New York*] and treats of the progress made by Lunch Rooms and Coffee Houses, Social Clubs and Athletic Associations, Settlements, Reading Rooms, Gymnasiums, &c.

Even in regard to the crucial question of Compensation, opinion is fast crystallizing round the proposal of Lord Peel, that it be dealt with by a time notice to the Trade.

If this brief survey of public opinion in relation both to the aims of Licensing Reform and to the methods by which these aims are to be realised, be, as I believe, a true one, it follows that already an agreement upon vital points has been secured, probably as full as that which has existed in regard to other measures of first-class importance prior to their introduction in Parliament; while a sense of the urgency of reform in the interests of both social progress and of the commercial position of the country, is universal and profound.

PUBLIC HOUSE TRUSTS.

It is this very sense of urgency, coupled with something like despair of securing legislative reform, that accounts for much of the support given to Public House Trusts. This movement has spread rapidly, and enlisted the support of many persons of influence who have hitherto stood aloof from temperance effort.

The attitude of a portion of the Temperance party towards the Trust movement is, hovever, that of alarm, if not of active opposition. While recognising the disinterested aim of its promoters, they nevertheless urge that the enterprise carries with it elements dangerous to the public welfare. The primary object of temperance effort should, they maintain, be to bring about a substantial reduction in the *per capita* consumption of drink, and whatever may be the intention of the founders of the Trusts, this object is not likely to be persevered in by Companies which will not be subject (as in Norway) to statutory control. They admit that the Trusts may be of

service if they confine their efforts to the acquisition (1) of licences which the magistrates deem it necessary to grant in the case of newly settled districts, (2) of licences which town or county councils take over in connexion with street improvements, and (3) of others which the owners may be willing to hand over gratuitously to the Trust for management.

But they point out that such licences will be altogether insignificant in number as compared with the total licences of the country, and that the avowed aims of the Trust Companies go far beyond these narrow limits. If, on the other hand, the Companies seek to enlarge their operations by the purchase of licensed houses, they will have to pay enormous sums for them. If a Company invests large sums in this way, what, it is asked, will be its attitude towards the proposals of Lord Peel, under which all claim to the continuance of a licence is to cease at the end of seven years? Will not the shareholders be anxious about the safety of their investments and instruct their managers to stimulate sales, rather than restrict them, and will they not oppose all legislation upon the lines of Lord Peel's Report? It is further argued that in the case of Trusts yielding large profits, there is a danger (unless adequate guarantees are provided) lest desire of gain on the part of the community may take the place of private cupidity. It is one thing they argue, to have the profits appropriated under strict statutory laws towards counteracting agencies and quite another to devote them to the lighting of village streets or the providing of trained nurses.

Such criticisms cannot be lightly set aside. On the other hand how strong is the argument for a Trust when it is known that in certain newly settled districts the pressure for a licensed house is such that the magistrates will not be able further to resist it, and that consequently the choice lines between a public-house run on lines for private profit, and a house under responsible control! Even to the strict teetotaler, the latter will seem the lesser of two evils.

It appears then that the most dangerous pitfalls in the

path of the Trust movement are (1) the policy of purchasing licensed property at enhanced monopoly values, and (2) the adoption of methods for distributing profits which shall give the locality a collective interest in the maintenance or extension of the traffic. As a temperance agency, the movement is likely to be successful according to the degree in which these dangers are avoided.

The Trust Companies cannot do more than touch the fringe of the national temperance problem. As Sir William Houldsworth points out, they can, at the best, "only be useful as pioneer experiments." The great service they may render is that under favourable circumstances (such as a district monopoly more or less complete) they may establish up and down the country object lessons of what would be universally possible under public control. The Trusts can never do away with the need for drastic legislation. Those, therefore, who are convinced that the evils of the drink traffic cannot be dealt with successfully till private profit is eliminated from the retail trade, will watch the development of the Trust movement with interest and solicitude. It may help either to forward or retard temperance progress.

A SUMMING-UP.

Trust Companies are, however, only part of a wider movement. As the writers of "British Gothenburg Experiments" point out, the Company System in one or other of its forms has taken firm hold of the public mind, and for good or evil, it has come to stay. The hindrance at present to its wide extension arises from the difficulty of obtaining new licences. Were the ground once cleared by the adoption of a time-notice such as is proposed by Lord Peel, the Company system would probably receive immediate and enormous expansion. And if the system were once established on a wide scale without adequate safeguards, legislation with regard to it would become extremely difficult; communities which had for a few years found themselves in possession of large incomes from the profits of the trade would certainly be un-

willing to surrender them. The peculiar danger of the system as carried on in the town of Gothenburg, of making the people interested in the maintenance of the traffic by using the profits in relief of rates, would then be experienced in this country. A very few years might suffice to give the system such lodgment that it could not afterwards be displaced. It cannot, therefore, be too strongly urged upon temperance workers, and not least upon those who are hostile to the Company system, that the question is no longer whether there shall be companies or whether there shall not; but it is simply *whether there shall be Companies under wise and adequate control, or whether they shall exist without such control?* The present is the "psychological moment," which the Temperance party may either take or neglect. They have it, we believe, now in their power to make sure that any form of the Company system that may continue or come into existence after the years of notice to the Trade have expired, shall be upon wise lines. It may be useful and necessary that they should keenly criticise the experiments now in force. But if temperance effort ends merely in criticism, without effort to unite the temperance forces in favour of some policy for securing adequate control over these Companies, the golden opportunity will pass and it is difficult to see how it can return. Mr. Asquith recently said "that the history of the temperance question is a history of lost opportunities." Is this statement to receive yet another illustration?

JOSEPH ROWNTREE.

ON DURGA, SIVA AND KALI IN THEIR EXOTERIC ASPECTS: A CRITICISM ON MAX-MULLER.—IV.

[*Continued from page 142, Vol. V.*]

In treating of our present subject, we divided it into three great parts:

PART I.—The Primary Stages.
PART II.—The Developmental Stages.
PART III.—The Collateral Relations.

We have done with the whole of Part I with its three sub-

divisions, namely (1) Durga as a Vedic conception; (2) the Vedic Altar developed into Durga; and (3) Professor Max-Muller's error and the non-scientific character of his treatment of the subject and the consequent mischief at the hands of Christian Missionaries in India. (*Vide pp.* 33—42, *Vol. V.*)

We have described also the following developmental stages in the *exoteric* presentment of Durga;—namely, (1) development of Sati into Uma; (2) development of Uma into Ambica; (3) development of Ambica into Durga; (4) Durga as the representative of the Highest Divine Wisdom: (*pages* 73—76 *and* 140—142, *Vol. V.*) The last or the fifth-subdivision of Part II.—namely, the question of Durga's non-Aryan Names remains to be discussed; after which Part III. will be taken up.

DURGA'S NON-ARYAN NAMES EXPLAINED.

Max-Muller in his "Anthropoligical Religion" from which we have already copiously quoted (*pp.* 35—6, *Vol. V.*) is bewildered by the two-fold and contradictory aspects of Durga. On the one hand, he finds distinct proofs of Durga being a sort of "importation from non-Brahmanic neighbours, possibly conquerors, or adaptations of popular and vulgar deities by proselytising Brahmans." On the other hand, he is perplexed by the fact that "if she was originally the goddess of mountaineers, and grafted on such Vedic deities as Ratri, Rodasi, Kali, Nirriti, one does not see yet how she would have become the representative of the Highest Divine Wisdom;" in which last capacity we find her in the Taittiriya Aranyaka—18, and also in the Kena-Upanishad.

Max-Muller, it seems, while inclined to put greater emphasis on his theory of the non-Vedic, non-Aryan origin of Durga is still held back by the circumstance that *that* theory "would not account for *all* the elements which went towards forming such a goddess as we see Durga to be in the Epic or Pauranic literature of India," and more especially the element of Durga's being the representative of the Highest Divine Wisdom. We have already treated at length of this aspect of Durga's Divine Wisdom (*vide* pp. 144—142); and would proceed now to reconcile that aspect of Durga with the other aspect of Her being designated by non-Aryan names, without having recourse to the theory of Her non-Aryan origin, of Her "importation," to use Max-Muller's language, "from non-Brahmanic neighbours, possibly conquerors, or adaptations of popular and vulgar deities." It is necessary,

however, at the outset, to prevent misconception, to give in full Max-Muller's arguments in favour of the theory of Durga's non-Aryan origin:

"Traces of a foreign, possibly of a Northern, or North-eastern Durga, may still be discovered in some of her names, such as Haimavati, coming from the snow-mountains; Parvati, the mountaineer; Kerati, belonging to the Keratas, a race living in the mountains east of Hindustan. One of her best-known names, Chandi, explained as violent, savage, belongs to an indigenous vernacular, rather than to Sanskrit. Chanda and Munda, the latter possibly meant for the Munda tribes, are represented as demons conquered by the goddess, and she is said to have received from her victory over them, the name of Chamunda; possibly Chandala, the name of one of the lowest castes may be connected with Chandi, supposing that, like Munda it was originally the name of a half-savage race."

In properly appraising the value of what Max-Muller and also of what has to be said by us, it is necessary to note that Max-Muller's logic in the above consists in assuming that the connexion between Durga and Her non-Aryan names must necessarily be one derived from "importation or adaptation" as above referred to. That there must be some reasonable connexion between the Name and the Person of Durga admits of no doubt; but to argue that that connexion must be such as is *inseparably* associated with the very origin of Durga, seems to us to be not very logical indeed, especially when it is remembered that the theory of connexion through origin is incompatible with another well-recognised and admitted fact, namely the Divine Aspect of Durga,—Durga in her character of the Highest Divine Wisdom. Let us then try some other means of explaining such other names of Durga, as Chandi, Chamunda, Parvati, Haimavati, Kirati and Kapalini which names, in our opinion, do not *necessarily* prove Her as originally the goddess of the non-Aryan tribes, living in the mountains, and living savage in half-savage lives. Those who have followed our description of the "Primary Stages," (pp. 37—38, Vol. V), and especially of the Vedic origin of Durga in *Agni* (Fire) will have no difficulty in understanding that the name Chandi explained by Max-Muller to mean "violent," might very well be applied to Durga as representing Fire, or *Agni*. Max-Muller's way of taking "violent" as naturally equivalent to "savage" is only too characteristic of the foreign orientalist's mind. As to Durga's name of Chamunda: The Aryans are described in the Puranas as having destroyed the two Asuras, Chanda and Munda, and it was characteristic with the Rishis

of old to attribute an act of heroism or national glory to their presiding deity: The Puranas declare:

यस्माच्चण्डञ्च मुण्डञ्च गृहीत्वा त्वमुपागता ।
चामुण्डेति ततो लोके ख्याता देवि भविष्यसि ॥

[Since thou hast returned after seizing Chanda and Munda, thou shalt henceforth be known to the world as Chamunda.]

As to the names, Parvati and Haimavati, they may well be explained in connexion with the revival of the Vedic Sacrifices which took place somewhere in the Northern districts. We have already shown that the very germ of the conception of Durga is to be found in the fact of the Vedic Sacrificial Altar. (*Vide page 37 and all the previous articles on the subject in Vol. V*). The Puranas further say that the saint Katyana (or more correctly, Katya) who first saw Durga had his hermitage in the Himalayas.

Next, we consider the names, Kirati and Kripalini. These names indeed represent very base tribes. How Durga came to be styled after them is no doubt a matter for some thought. To the Hindu, however, the problem presents no unusual difficulties. Durga is the representative, we have seen, of Agni, the living Fire, in whom all life must exist, without whom no life could ever be; and the Rishis saluted Her as जीवरूपिण्यै नमः—'we salute thee that art the very life of this living universe!'. To this very universalism of divinity, to this divine oneness in all separated existences must be traced the application of all forms of names to the Hindu Goddess, Durga. The universalism of Hinduism could be in no better way brought to light than the following hypothetical illustration of our argument. Supposing the Rishis were fortunate enough to have the English as their neighbours, as we do, in these latter days, we could guarantee we should have got, handed down to us, another form of salutation like the following:—"श्वेतप्रतिवेशिरूपिण्यै नमः"—'We salute thee that dost represent our white neighbours.' Such were the old Rishis and such were the forms of worship of God that they sought to popularise for the benefit of all of us. Let us have one more hypothetical illustration. Let us suppose that Max-Muller, or for the matter of that any foreign Orientalist, came across such a form of salutation as लङ्कायां पापराक्षस्यै नमः—(We salute thee that dost exist as the turbulent Rakshashi in Lanka). He would have immediately seized upon this as undoubted evidence of Durga having originally belonged to Ravana, or that Alexander the Great had brought and left her for the

crafty Brahmins to engraft her on the stem of some ancient Vedic Deity. To those, however who understand aright the ways of thought of the ancient Rishis and the manner of their presentation of the Deity, names like Kirati and Kapalini and forms of salutation like "किरातिन्यै नमः" or "कपालिन्यै नमः" only illustrate the catholicty, depth and the truth of their faith in the One God manifesting himself in diverse ways and called after various names.

KEDAR NATH VIDYABINODE.

ZEMINDARS AND ZEMINDARY MANAGEMENT: —A BRIEF SURVEY OF THE SITUATION.

Land is the right basis of an Aristocracy. "Whoever" says Carlyle, "possesses the Land, he more emphatically than any other is the Governor Vice-king of the people on the Land." The landlords of Bengal are naturally its virtual rulers. They govern the destinies of millions of toiling tenants. With the aid of a corrupt police, suborned witnesses and hired advocacy in the law courts, the landlords *can* crush their refractory poor tenants. The law courts can afford no protection to the poor and the ignorant. For justice is yet in civilized countries a matter of bargain and sale. But it is in the power also of the Zemindars to do as much good as evil to their ryots. It is to be hoped that with the spread and growth of education, the Zemindars will more and more recognise their duties and responsibilities. There is hardly any position in which Power has not its dangers and temptations. The Zemindars are powerful. They are open to temptations and dangers. It must be admitted that they are born into disadvantages. Livelihood does not compel them, as it compels the middle classes to seek education. Until recently, they had hardly any noble object of ambition. It is therefore not to be wondered at that they are as a class not so well educated as the middle classes. Even those Zemindars who are well educated have inherited the vicious traditions of a chaotic age of disruption when clubmen and trickery were the potent allies of their predecessors. Their *amlas* are

generally most inadequately salaried. It is well known that when salary is insufficient, it is generally supplemented by dishonest means. In this case the fault is more yours than your servant's. By your stingy and short-sighted policy you turn an honest man into a thief. The present system of underpaying the *amlas* has the tendency of turning them into thieves. History tells us that public servants also, whether European or Indian, turn into thieves, when underpaid. The *amlas* with a few honourable exceptions have no liberal education. Corruption and ignorance are incompatible with self-respect. The *amlas* stand before their master in an attitude of prayer with folded hands. They address him as king. They incessantly pander to his vanity, and in the name of prestige, daily incite him to illegalities and immoralities. They try their best to entangle him in criminal and civil cases which are always profitable to them. These officers constantly din into the ears of their master that to cheat and rob whenever that can be done with impunity is the privileged function of a landlord. They live in an atmosphere of lies and flattery. The environments, in short, of the Zemindar are very demoralizing. He is enervated and unmanned by a most fulsome flattery and by the daily spectacle of human debasement.

It is still more to be regretted that some even of our educated people hold that it is impossible to manage a Zemindary successfully without sacrificing principle and honesty. Is it true? Should it be really so, how horrible would be the moral condition of the Zemindars! Nevertheless, it cannot be gainsaid that there are some men of education who seem to think that a successful Zemindar should be a thorough-going villain; that he should be ready to perjure himself, to forge, to hire ruffians for secret assaults and to set the house of a refractory tenant on fire. It is to be hoped, however, that few landlords, if any, would accept this monstrous gospel of Zemindary management.

We have a right to expect the Zemindars to be the leaders of our society in worth as well as wealth. Lord Curzon said

at the Rajkumar College, Rajkot :—"The chiefs are not a privileged body. The estate was not their private property and its revenues were not their privy purse; but they were intended to work, to exist for the benefit of their people, and to be leaders and examples." May not these noble words of His Excellency be aptly applied with but slight modification to the landlords of Bengal? May we not truly tell them—"You are not a privileged body; the Zemindary is not your private property, and its rental is not your privy purse, but you are intended to work, to exist for the benefit of your ryots and to be leaders and examples."

Estates can be successfully managed with honesty. There is delight in good work—the supreme satisfaction of making others happy. Good work has its prestige. The prosperity of the tenants is compatible with that of the Zemindars. The Zemindars cannot really prosper unless the tenants prosper also. Even if the cultivators were looked upon as milch cows or slaves, they must be well fed, they must be healthy in order to be able to supply their masters with plenty of milk or produce. Slavery in any form is not only revolting to the enlightened conscience and humanity, but it has been found to be economically a mistake. Let the cultivators be treated not as slaves but as free men who have a right to live—to have full meals and clothes and education. If the cultivators of our country prosper, the nation including the Zemindars will surely prosper also. If half the money that is now wasted on infatuated or profitless litigation by the landlords, were to be devoted to the improvement of the cultivation, what an amount of good would be done to our country!

Litigation may often be avoided, if the landlords do not lust after the lands of each other and if they do not yield to the counsels of their interested and unprincipled servants. Some landlords would spend a large sum of money to secure a property to which they may have no rightful, or have only a very doubtful, claim. The amount would have been enough to purchase him (and to enable him to take peaceable possession

of) a property of equal, if not of greater, value. Much litigation is due to boundary disputes. Attempts are first made to settle these disputes by a free use of clubs which sometimes end in homicides. In such fights, some landlords brutalize themselves and their agents by the nasty artifices which they have to adopt to elude the law and the consequences of criminal prosecutions. The intelligent Zemindar will perceive that the part played by the zemindar in the fight is neither brave nor noble. He has not even the merit of valour which a general always shows in a regular battle. The latter never hides in a hole during a battle to escape the balls and bullets which decimate his soldiers; nor does he ever repudiate his responsibility. But the first care of a turbulent Zemindar now-a-days would be to keep himself at a safe distance, to disown all knowledge and responsibility in the fight which has taken place under his deliberate orders and to plead *alibi*, if criminally prosecuted. I appeal to the class of honourable Zemindars to say whether such subterfuges do not betray cowardice and meanness. May not the Zemindars settle these disputes amicably by entering into an agreement among themselves to abide by the Revenue Surveys and the *Thak* maps?

The Permanent Settlement was not preceded by any systematic survey. But in the course of the last 45 years Lower Bengal has been subjected to a professional survey which has determined the boundaries of every village and issued maps. When there was no such survey maps, there might be some scope for *lathies* (clubs) and litigation. But is it now necessary at all that a landlord should strive to decide the preliminary question of possession by hired clubmen and seek to determine the proprietary right by forged papers and hard swearing? Possession that is opposed to title and right is a very unstable thing, a perennial source of quarrel with the wronged man that has the title but not the possession. The efforts and expenses that are necessary to keep the rightful owner at bay sometimes exhaust the resources of the wrong-

doer. Litigation in the long run is almost as ruinous to the victor as to the vanquished. Unfortunately litigation is frightfully increasing in our country. It is not only intensifying and sowing discord and ill-feeling between man and man, but it is sapping the foundations of Virtue and Honesty. For an Angel could not pass through our law-courts without being defiled in mind and morals. The landlords as a class are more litigious than any other class. They are, therefore, most open to the baneful influences of the law-courts. Familiarity with chicanery and trickery, perjury and forgery are apt to sear the conscience of an habitual litigant. Honesty and truth come to be regarded by him as things which have no existence except in the minds of fools and fanatics. I leave it to the thoughtful men of our country to judge whether the increasing litigation among the Zemindars will not more and more lower the standard of morality among them. *They are the leaders of our society. Their example is sure to be followed by others. Thus, the demoralization of the landlords would surely demoralize the whole nation.*

Apart from the interest of the whole nation, it is the interest of the Zemindars themselves to show themselves worthy of the high position they hold. They are becoming more and more unpopular with the public. They have lost the virtues of their predecessors, whose lives were distinguished by benefaction and splendid werks of public utility. By digging tanks, founding *dharmasala's*, alms-houses, maintaining *tols* (free Sanskrit colleges) and by performing a thousand other saving acts of charity, they vindicated the possession of their wealth, which flowed back in part to the poor tenantry from whom it was derived. But the Zemindars now generally waste their income in litigation and baubles of vanity. They live in selfish and proud isolation. The middle and educated classes never care to meet them except on business. The tenants chiefly feel their power in the enhancement of their rents and in attempts at their ejectment. The Government judging from the tendency of recent legislation do not seem

to think highly of them. The socialistic tendency of the age is against the landed drones. Lastly, Religion, which has been well described as the championship of the Poor against the aggressions of the Rich, predicts certain ruin of those who have placed the iron heel of oppression upon the necks of the common people, unless they repented before it was too late. All the progressive forces of the age are thus against those landlords who coin human misery into rent.

The duty of the landlords is plain. They can, if they choose, constitute themselves into a subordinate government, nay, set an example of practical goodness to the alien government by promoting the welfare of the tenants by a fatherly care, basing their supremacy not upon Fear and Hatred, but upon Love and Gratitude, deriving their strength not from the weakness but from the strength of their happy, loyal and manly tenants, and creating in our country a fresh and pure atmosphere in which noble ideas and high resolves would flourish. Landlords of Bengal, do so; and you will be conserved, esteemed and respected by your rulers. If you choose to pursue the path of narrow selfishness, you will surely be ruined. The Court of Wards Act will be more and more modified so as to bring the estates of all oppressive and violent Zemindars under the control of the Court of Wards. An article which appeared in a leading journal in England a few years ago over the signature of an Indian Raja and also the course of recent legislation in the North-West Provinces have foreshadowed though faintly such a contingency. In another part of India, a leader of Indian thought has proposed that the agrarian reform effected in Germany should be carried out here by partitioning the holding of the ryot between him and his Zemindar in proportion to the pecuniary income derived by each from the land. I am far from advocating such a change in conquered India. But I want only to point out to the Zemindars the dark gathering clouds which show that a storm would break over their heads very soon unless their own reforms should dissipate those clouds. Zemindars of Bengal

do not rush upon destruction. Do not try to live isolated. Because you cannot. "We are all bound together for mutual good or else for mutual misery, as living nerves in the same body."

A MANAGER OF A BENGAL ZEMINDARY.

FROM THE LIPS OF A SAINT.—X.

[*Continued from page 375 Vol. V.*]

(*Rendered into English by Radhakumud Mookerjee, M.A.*)

What is Parakala (परकाल)? It is the time following death as the afternoon followeth the morning. The place where dwelleth the soul after its separation from the body is termed the *Paraloka* (परलोक) or the next world. Some are inclined to think that the next world is a certain definitely fixed place but those who are rigorous investigators into truth say that as long as we do not know anything about the nature or locality of such place, we cannot by any hypothesis come to any definite conclusion about it. Every one admits that the soul shall survive the death of the body to take the consequences of the life's work; but there is no unanimity of opinion about the situation of the next world. In many books the next world is described like this. In the Arabic books the description of the next world mentions the natural fountains and the delicacies indigenous to the country. Those who are seekers after pleasure, *i.e.*, the epicureans have supposed the existence of pleasure-giving objects in the next world. Some, again, say that after death, the soul will sojourn over all the visible planets and as it learns about this earth so it will learn of all the planets by being born to each. This is called transmigration from one place to another. Nothing certain is known about it. What is man in reality? Verily, it is not the body, but the spirit (which informs it with life). Wherein doth this spirit abide? We known that inanimate matter cannot exist but in space: but the spirit, or the vital principle—where does this dwell? Why, in the Universal Spirit as well in this world as in the next. God Almighty is its support both in this world and the next. He indeed is our "next-world." Our ancient sages also have asserted the last-mentioned proposition, *viz.*, that in God is our next world. Like the life after death we can conceive of the existence of the next world but whether this contains any ordinary human habitations or not, we cannot say; nor is it revealed naturally

to our understanding for then everybody without exception would have such knowledge.

But whether it be in this world or the next, since the Supreme Lord is both just and all-merciful, we must have to suffer the punishment for our sins and enjoy the rewards of our merit. The operation of the law of *Karma* (कर्म) does not, indeed, commence immediately after death but it does, the moment we are alive to the sense of sin and of virtue. We commit sins in a two-fold way: first, physically, through our body; secondly, morally, through our soul. The sins of the body bring on diseases and physical pains. The sins of the soul bring on torture to the heart. Why doth the Lord Almighty thus arrange for the punishment of sins? Verily, He rules over us like our parents for our own good. It is because that man has no living faith in this eternal life and the unavoidable consequences of his *Karma* that he is so prone to commit sins.

In the description of the next world in many books may be found copious accounts of Heaven and Hell. On this point, I will tell you the following story from the *Mahabharata.* Yudhisthira, on going to Heaven, saw dwelling there, Duryyadhana and the rest. He then asked Narada where Arjuna and the rest were living. Thereupon, Narada took Yudhisthira to where Arjuna and the brothers were. The stench of the dirty place drove Yudhisthira away from thence, when from all sides arose the cry, "stay thou, O king, for thy presence sends happiness unto us." Then, Yudhisthira asked them who they were and heard in reply, "I am Arjuna," "I am Bhima," "I am Nakula," and "I am Sahadeva." Then Yudhisthira thought within himself thus: 'these did never commit any sin but on the contrary performed all the duties of a Kshetriya in war; then why should they suffer the pangs of Hell'—Then Narada said unto him: "Is it possible that your brother should ever suffer in Hell?" Indra also said: "Lo: O King, since you practised deceit by uttering the words, 'Aswathama is dead' so you are in a similar manner visited with this appearance of Hell." Narada then said: "Heaven or Hell is nothing but a mental state. Do thou bathe thyself in the celestial river, Mandakini and all (evil) will cease with the destruction of the three Gunas or orders of qualities (सत्वः, रजः, तमः)." Some even argue that self-praise is Hell and self-contemnnent is Heaven. Again, in the Puranas also there is a description of Heaven and Hell. The descriptions of the Puranas and the Korân are identical. The Bible and the Buddhist Scriptures also contain the same description. If we consider man's nature we find inherent

in it the knowledge of a life after death, of the unavoidable fruits of our work and a thirst after immortality. But there is in it no such knowledge of the nature of the next world. We are to continue to remain here only so long as God wills that we should inhabit this earth. But the fact, the all-important truth is that we have no destruction,—why of men only—not an atom is destructible, so that it is all useless to *discuss* about the next world.

External things are revealed to us through objective observation, the inner mental truths through introspection. The fact of immortality is a truth of the inner mental world as is admitted by everybody. It is not that one admits this by reading books or hearing of it oft from others; for, even among such tribes as have no written literature and no intercourse with the civilised races, we still note this sense of a life beyond the grave. Below is an account given by a *faquir* or an ascetic about the existence of this knowledge in the minds of the Kookies among whom he lived for a long time. The Kookies who inhabit the British territory eat cooked flesh and are called the "cooked" Kookies; while those who inhabit the hills eat raw flesh and are called raw Kookies. When the venerable *Faquir* went to the Kookies of the Hills, they were bent upon cutting him to pieces but he escaped through the kindly offices of a Kookie woman. He observed that of these raw Kookies if any one held respectable by them died, a cooked Kookie was cut to pieces and added to the corpse. For it is their belief that the attending "cooked Kookie" cut to pieces becomes the servant of the desceased in the next world. Again. A European having landed in an island in the neighbourhood of Japan saw there among the wild tribes a number of naked males going in a dance with an old woman, when the European asked them why they did so. They replied: "She is our old mother. As she is very old we are taking her to be sent to the other world. As she has borne us in her womb for ten months, so shall we also bear her in our belly, we shall cut her to pieces and eat her up." This they said in all seriousness. The European gentleman then tried in many ways to make them abstain from such an action, but they replied, "Why? Since she is suffering from the infirmites of age in this world she will live happily in the next." Another European gentleman has given us an account of the views held on this subject by all the different races of the Earth. He has shown that of the next world various imaginary accounts have been given by various races. Some have described Hell as a place of utter darkness, of huge flaming fires, of

deep pits full of abominable dirt and have also painted the manifold enjoyments of Heaven.

It would thus appear that the accounts of the next world vary with each other among the different races. Even the funeral ceremonies of different races are seldom identical. But there is a unanimity of opinion on the *existence* of another world than this and also on the unavoidable fruits of our deeds on earth. What is truth is also universal, what is fiction is not so. It is often to be seen that party spirit and sectional animosities are aroused only in the attempt to shape the tastes and opinions of others after one's own but there can be no such feeling in the case of truth. As the seed containeth within itself all the elements of the tree—its roots, its branches and all, so that what is not in the seed cannot ever be (and thus if I try to get चापा flower out of a cocoanut tree, it cannot ever be, what is not within a thing cannot come out of the thing); likewise God has implanted truth in everyone's soul, so that what is not in that soul—how shall it ever show itself without? Why?—verily there is a variety among men as among trees. Wherein then doth this variety exist?—in their tastes and opinions varying according to time, place and circumstances. The body is the machine, we its owners—we are work this machine. Nothing is destructible in God's creation, therefore we also are indestructible. There *is* a life after death and the results of all our doings are unavoidable. The sense of this truth is natural to the minds of man and current among all races of mankind.

A SCHEME FOR THE INSTITUTION AND MAINTENANCE OF VILLAGE GRAIN BANKS.—II.

[*Continued from page 19, Vol. VI.*]

(1) *Itihas khata.*—In this book, the name of the person who proposed the Dharma Gola, the names of the villages for which it was established, and the proceedings of the meetings of the villagers shall be recorded. The Panchayets shall also record in this book any other relevant matter connected with the history of the Dharma Gola.

(2) *Niyamabali khata.*—In this book, the rules and regulations in connection with the Dharma Gola shall be recorded: and if any rule is changed, added to or expunged, the alteration shall be properly recorded.

(3) *The Amdani khata.*—In this book the quantity of paddy contributed as stock by each villager shall be entered against his name. The total quantity of paddy realised as increase or interest at the end of the year, the quantity of paddy given away in charity, or expended as collection charges, or

as the remuneration of the *Goladhyaksha*, or as charges for guarding, or for the maintenance or repair of the Dharma Gola, or for any incidental expenses, shall be entered in this book. At the end of each year the Panchayets shall enter in words the totals of debit and credit, and sign their names. The totals shall be carried forward to the next year's account.

(4) *Jamakharach khata.*—All entries about the loan of paddy given to different individuals, and the realisation of loans and interest shall be recorded in this book. Every entry on the debit side shall be written both in figures and words, and, if practicable, shall be initialled by one other member of the Panchayets besides the *Goladar*.

(5) *The Hatchita khata,*—In this book, under the heading of each creditor's name, the particulars of his transaction with the Dharma Gola shall be entered by the creditor, in his own handwriting, on if he is illiterate, by the hand of a friend or neighbour or by one of the Panchayet; but the creditor shall put the mark of his finger under the entry in all cases where he is unable to write. The name of the creditor shall be signed by himself or by his agent on the right side on the top of the page, as is usual in *Hatchitas.*

(6) *The Khatian khata.*—In this book, the name of each creditor shall be written at the top of the pages, and their transactions, credit and debit, with the Dharma Gola on different dates shall be taken from the Jamakharach, and entered chronologically, and totalled to show the loans granted and realised. If, in the opinion of the Panchayet, the *Hatchita khata* is considered sufficient to answer the purposes of the *Khatian*, they may dispense with this *khata.*

If deemed necessary, a few pages in this *khata* may be set apart for *Khatiani* of the *Amdani khata.*

(7) *The Nikashi khata.*—At the end of each year, the yearly account of the Dharma Gola shall be prepared by the Panchayets and audited, and the abstracts of the accounts shall be recorded in this *khata.* The Panchayets shall also record in this *khata* any remarks they or the villagers, assembled in meeting, like to make regarding the yearly accounts. It will not be necessary to *change* this *khata* from year to year, several years' accounts being consecutively recorded in one and the same *khata.*

(8) *The Mantabya khata.*—If the Zemindar or his agent or any officer of Government, or any other person interested in the Dharma Gola visits or inspects the Dharma Gola, and wishes to write any remarks or suggestions, such remarks or suggestions may be written in this book.

16. Before any entries are made in any of the *khatas* in connexion with the Dharma Gola, all the pages of the *khata* shall be numbered in ink.

17. When a person in the village is in actual want, he may forthwith apply to any of the Panchayets for a loan of paddy.

18. The whole Panchayet or any two of them shall then enquire into the extent of the applicant's wants, and his capacity to redeem the loan, and, if necessary, they may call upon him to produce one of his friends as a surety for the loan, before they sanction the loan of paddy from the Gola.

19. No person shall be allowed loan of paddy in excess of his real want, or in such a quantity as may prevent other villagers from getting loans when in want.

20. The *Goladar* shall always consult at least one among the other Panchayet before granting loan to anybody.

21. If any of the Panchayet or the *Goladar* transgress Rule Nos. 19 and 20, any one of the villagers may call a meeting of the villagers, who shall deal with each individual case according to its merits, and may dismiss the Panchayet if necessary.

22. The *Goladar* shall enter the name, the father's name of the person to whom paddy is lent; as also the quantity of paddy lent,—in the *Jamakharach khata*, the entries regarding quantity being totalled in figures by the *Goladar*.

23. The quantity of paddy given to a person on loan shall be realised with interest after the next harvest by the Panchayet. As a rule, however, every debtor shall himself bring paddy to the Dharma Gola in payment of the loan.

24. The date of payment, the quantity realised, the debtor's name, &c., shall be immediately entered on the credit side of the *Jamakharach*, and the same shall forthwith be entered in the *Hatchita khata* to which the signature of the debtor shall be affixed.

25. If any debtor desire to pay only the interest and not the principal, the same shall be accepted by the Panchayets, if there be no especial grounds for refusal. The unpaid principal or the interest shall be considered as a fresh loan for the next year. No person living outside the limits of the village or villages for which the Dharma Gola is established shall be entitled to any loan in the manner prescribed.

26. Contributors to the Dharma Gola and their descendants shall have priority of claim in respect of loans from the Gola.

27. In case a debtor fails to pay off the principal and interest after the next harvest, he shall have to pay off his loan during the next succeeding harvest year with compound interest.

28. The Panchayet shall take particular care to see that 90 per cent. of paddy due on account of principal and interest at the end of the harvest

year is realised. They shall be responsible if the arrears exceed ten per cent.

29. No debtor shall be allowed to withhold payment of his loan for more than two years, except on the ground of total failure of his crops for two suceeding years.

30. The Panchayet may stop giving loans to any person who has not behaved well in his transactions with the Dharma Gola, for a period which may extend to three years.

31. When the stock of paddy will have increased to a thousand maunds, the Panchayets shall not lend more than 750 maunds during the year following, but shall keep 250 maunds in the Dharma Gola as reserve stock, and they shall add 250 maunds next year to the reserve stock and so on unless prevented by any unforeseen circumstances, until the quantity of paddy in the reserve stock will have attained to (2,000) two thousand maunds, or such quantity as in the opinion of the villagers would be sufficient to feed them for the space of six months or more, during a year of total failure of crops.

32. The Panchayet shall exchange old paddy for new paddy, whenever they think it necessary to do so, to prevent deterioration of the stock.

33. Any one living in the village, whether or not he be a contributor to the Dharma Gola shall have the right to exchange new paddy for old paddy in the Dharma Gola up to a certain limit to be determined by the Panchayet, but he shall have to pay an additional quantity of two seers per maund of paddy so exchanged.

34. No one will get a loan from the Dharma Gola for the purpose of opening shops to sell paddy, &c., or for any other purpose save and except to meet his urgent demand for grain for food. If any one is found to break this or the spirit of this rule, the villagers on proof of wrong conduct shall as a punishment stop lending him paddy for a period of three years from the Dharma Gola, or he may be visited with some social punishment.

35. Towards the end of each calendar year, the Panchayets shall weigh the stock of paddy in the Dharma Gola in the presence of three of the principal men of the village, who will certify the quantity of paddy found in it.

36. They shall then prepare a complete account of the year's transactions, and a clear statement showing the stock of paddy at the commencement of the year, the quantity given away as loan, the quantity realised, the quantity realised as interest, the quantity of principal and interest in arrears, the quantity of bad debts, and the quantity of decrease in stock on account of wastage, loss in weight, and other causes.

37. As soon as the accounts and the statement are ready, the Panchayet shall convene a meeting of the villagers, and the accounts and statement shall be laid before them and explained.

38. The villagers shall carefully examine the accounts, and may sanction the striking off of all the bad debts; and the total amount shall be immediately debited in the *Amdani khata* in the presence of the villagers. The total quantity of wastage should be carefully examined and if its percentage is unusually high, the Panchayets shall be required to explain the cause of such wastage to the satisfaction of the villagers. If the explanation is not satisfactory, the Panchayet shall be made liable for the loss, and the loss shall be realised from them in any manner that may be settled at the meeting of the villagers.

39. If the villagers assembled at the meeting find that any defalcation has been committed by a Panchayet, they shall dismiss him and appoint a new Panchayet in his place, and take proper steps to realise the amount defalcated with interest. The Panchayet may also be visited with some social punishment suited to the nature of the case.

40. The villagers assembled in meeting will also sanction the quantity of paddy which is to be paid to the *Goladar* as reward or remuneration, and they will then finally sanction the accounts and statements, and at least ten of the villagers shall affix their signatures to the statement of annual accounts, and they may record any remarks that they may think necessary and proper.

41. If any Panchayet dies, or resigns his appointment during the course of the year, his place shall be filled up by the villagers without any unnecessary loss of time.

42. At the end of each calendar year, it will be optional with the villagers to elect new Panchayets or to retain the old Panchayets.

43. Whenever there is a change of *Goladar*, the keys of the Dharma Gola will be handed over to the new *Goladar* in the presence of at least three of the principal villagers.

44. The villagers assembled in annual meeting may, if they think necessary, alter or add to or expunge, any of the existing rules or may make new rules, and may change the rates of interest on loans by a majority of votes of the contributors, subject always to the provisions of Rule 7.

45. It shall be the duty of the Zemindar of the village, or his authorised agent, to inspect the accounts and the stock of the Dharma Gola once every year, and to record any useful remarks or suggestions in the *Mantabya khata*.

46. The Panchayet will be bound to show the books to the Zemindar or his recognised agent, whenever they desire to inspect them. If any Govern-

ment officer likes to inspect the books, and to inquire into the management of the Dharma Gola, the Panchayet will be bound to offer every facility to them, and shall request them to record in the *Mantabya khata* any remarks that they wish to make in connexion with the Dharma Gola.

47. If anyone makes any money contribution to the funds of the Dharma Gola, the Panchayet shall be bound to receive such contribution, and shall apply the money to meet expenses for repair, &c., of the Dharma Gola and shall also keep an account of the same.

48. As a rule, all payments for the erection of the Gola, or railings or for the incidental expenses shall be paid in paddy from the Dharma Gola, but in cases where cash payments are absolutely necessary, the Panchayets may sell some paddy and convert it into cash for the purpose.

49. The villagers should make voluntary donations in cash or in kind to the Dharma Gola on all joyful occasions, such as of marriage, or the birth of a child, &c.

50. People passing by the Dharma Gola must make a bow or *salam* or take off their hats according to their custom.

51. No one should indulge in intoxicating drinks, or, sing any other than sacred songs, or otherwise conduct himself without proper regard for public decency or morals within the enclosure of the Dharma Gola. Any one found doing so shall be expelled and punished.

52. The social punishments suggested in some of the above rules must not be of a kind too severe; such for instance, as the denial of the villagers to assist in cremating or burying any dead member in the family of the delinquent; or the exclusion of the offender or members of his family from the privilege of marrying themselves with other villagers or with members of their families, &c. The ostracism of the offender for a week or a month from social gatherings or from the caste feast, &c., should usually be resorted to.

53. The Dharma Gola shall be the joint property of all persons of the village or villages for which it has been established. The rights and privileges, which each villager shall have in the Dharma Gola, shall be as laid down in the rules. The people of the village or villages shall have no right to appropriate the stock of the Dharma Gola to themselves, or to sell the stock and divide the proceeeds amongst themselves. But if the village or villages be washed away by river, or the inhabitants of the village in a body are obliged to leave the village permanently, owing to the spread of malaria, or of pestilence, or to some other cause, it will be the duty of the villagers to decide as to the best way of removing the Dharma Gola to some other place, or to divide the stock in the Gola in such proportions, as to enable them to establish two or more Dharma Golas in separate localities

where the people of the village are likely to remove. In case of the failure of the villagers to do so, the stock in the Dharma Gola shall be transferred by the Zemindar, or by some authority which may have jurisdiction in the matter, to other Dharma Golas in the vicinity, or to any other institution of public utility.

RAI PARVATI SANKARA CHAUDHURI.

SVARAJYA-SIDDHIH.—XXVII.

[*Continued from page 253, Vol. V.*]

IV. Explanatory Notes.

(1). The extreme subtlety of the Brahman has been declared in the following passage of the Chhandogyopanishad (III. 16. 3) 'एष म आत्माऽन्तर्हृदयेऽणीयान् व्रीहेर्वा यवाद्वा सर्षपाद्वा श्यामाकाद्वा श्यामाकतण्डुलाद्वा"—'This my Self within the heart is smaller than a grain of rice, or of barley, of mustard or of the *S*yamakaseed, or even than the kernel of the *S*yamakaseed.' And again in the same book farther on we read. 'स य एषोऽणिमैतदात्म्यमिदं सर्वं तत्सत्यं स आत्मा'—'That which is this subtle essence—in That has all this its Self; That is the Truth, That is the Self.'

The argument is that anything that is gross or material must have a body made up of parts; now as these parts have been united together to make up the whole, therefore they are liable to disunion also, and so the body must perish; but Brahman being the subtlest of the subtle is not made up of component parts and so is not liable to disintegration; hence it is existent. Compare in this connection the following two passages of the Panchadas*i*.

सतो नावयवाः शङ्क्यास्तदंशस्यानिरूपणात् ।
नामरूपे न तस्यांशौ तयोरद्याप्यनुद्भवात् ॥
नामरूपोद्भवस्यैव सृष्टित्वात् सृष्टितः पुरा ।
न तयोरुद्भवस्तस्मात् सत् निरंशं यथा वियत् ॥ २—१७, १८ ॥

(2). The seeming blue colour of the atmosphere does not really exist but is only a product of the imagination, and the subtle imponderable ether (आकाश), the substratum of this wrong supposition, is the real truth. So also the phenomenal universe is falsely imagined to exist through the influence of Maya, but there must be some truth as its basis on which Maya builds up her false fabrication. Brahman is that basis—the substratum on which this false structure has been raised up.

(3). Brahman cannot be separated from anything in the world, because it is the final resort or support of all. Just as we find the same trunk of a tree resorted to at different times by different things such as a serpent, a creeper, a rope or even a shadow, and sometimes anyone or all of these may be separated from it, but the trunk does not change and remains as it was, and is therefore comparatively true, so also all things of the world may be separated from one another but not from Brahman which exists as the final basis or support of all; therefore it is true.

(4). सन्मूलाः सौम्येमाः प्रजाः सदायतनाः सत्प्रतिष्ठाः "All these created things have come into existence from Brahman as their root (during their continuance) they reside in It, and (at dissolution) they rest in It."—Chhandogya.—VI. 8. 4.

We see that Brahman is the receptacle which contains everything in Itself, It is not contained in anything else. If we were to imagine another receptacle vaster still, and including Brahman, then there would be an endless series of containers and contents, and so an absence of finality. Hence we accept Brrhman as the final container, and therefore It must be true.

(5). In the Mundakopanishad, we find 'तच्छुभ्रं ज्योतिषां ज्योतिः —'That white (*i.e.*, pure) one the light of all luminous things', and also, 'न तत्र सूर्यो भाति न चन्द्रतारकं, नेमा विद्युतो भान्ति कुतोऽयमग्निः। तमेव भान्तमनुभाति सर्वं तस्य भासा सर्वमिदं विभाति ॥'—'The Sun does not shine there, nor the moon and the stars, these lightings do not illuminate That, far be this fire from It. All this reflects but Him the resplendent One, and by His light does all this look bright.' Mundaka, II. 9—10.

Just as a piece of word cannot give forth any light of itself, but blazes up only when fire is set to it, so also nothing in this universe possesses the power of manifesting itself, but does so only by virtue of the revealing and illuminating power of the self-luminous Brahman.

In the G*i*ta also it is said, 'यथा प्रकाशयत्येकः कृत्स्नं लोकमिमं रविः। क्षेत्रं क्षेत्री तथा कृत्स्नं प्रकाशयति तत्परं ॥' "Just as the Sun illuminates the whole world, even so does the Lord of this creation manifest it."—G*i*ta.—XIII. 33.

(6). When one in darkness imagines a rope lying across the path to be a snake, it frightens him just as if it were a real snake, and he may even fall into a fainting fit through fear; hence, the snake

in this case, has with relation to that man a real existence, called in the Vedanta a *Prativasika* or apparent existence. But when a light is brought, and the man perceives his mistake, he says that the snake is *not true*, it is only the rope that is really true. But even the rope is only true from the standpoint of a man whose perception is clogged by ignorance; and when the light of true knowledge is kindled in his mind, he finds that such things are "imagined by ignorance, and have no more true existence than things seen in a dream; but men have practical dealings with them as if they truly existed, so they are admitted to exist practically or conventionally."* The man is now forced to negative or contradict his former assertion and to declare that not the rope but its substratum, the Brahman is the *Paramarthika* or real truth. In this way we have to negative real existence with respect to everything that has a phenomenal existence. But we must stop here, negation can go no further; Brahman is the finality of all negation.

In the *Brihadaranyaka* also the real existence of all things in the universe has been negatived by the passage 'नेति नेति,'—'not this, not this,' *i.e.*, nothing in this universe is the truth and then that Brahman is the supreme, final truth and that there is nothing beyond It, are declared in the passage. 'नह्येतस्मादिति नेत्यन्यत् परमस्ति' —'There is no other truth higher than This (Brahman.')

A NOTABLE PHILOSOPHIC WORK IN BENGALEE.

[**Manava Tattva** and **Varna-Viveka**—Part I, by the author of Arya-Sastra Pradipa: Published by Rameshwaranand Brahmachari, 1, Sastitolla, Baranagore, 24-Parganas, p. 485. Price Rupees two only.]

It is an encouraging sign of the times that we are having so many original works in India from the pen of Indian writers. Bengal, evidently, has been taking the lead. That great work of Mr. R. C. Dutt, the Economic History of British India; the highly original production from the pen of Dr. P. C. Roy, D. Sc., of the Presidency College,—the "History of Hindu Chemistry;" the Memoirs of Maharaja Nubkissen by Mr. N. N. Ghose; the History of Bengal during the rule of the Nawabs by Kaliprasanna Banerjee; the Political History of Murshidabad by Nikhil Nath Roy; the History of Rajshahye by a most painstaking author; the historical monographs of Pandit

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* Jacob's Vedantasara.

Satyachandra Sastri; the standard work on the Sepoy Revolt by the late Rajani Kanta Gupta; the works of Babu Chandra Nath Bose and of Bhudev Mukerjee; the monumental work of Dinesh Chandra Sen—"*Bangabhasa O Sahitya*" or the History of the Bengalee Language and Literature prior to British Rule; the History of the Castes and sects of Bengal (in Bengalee) by Nagendranath Bose, the famous Editor of Visvakosh or the Encyclopædia of knowledge in Bengalee, which is also another monument of Bengalee industry, research and learning; the scientific Essays of Ramendra Sundar Trivedi; the Life of Michael Madhusudan Datta by Jogendra Chandra Bose; the Life of Vidyasagar by Chandi Charan Banerji; the Life of Raja Rammohon Roy—by Babu Jogendra Chandra Ghose, M.A., B.L.; another life of the Raja—also the result of much pains and thought by Nagendra Nath Chatterjee; the great work on the Life of Asoka by the late Babu Krishnabihary Sen; the Life and Character of Lord Buddha by Krishnakumar Maitra; the Life of Lord Gouranga by Sisirkumar Ghose; the work on Pali Grammar by Pandit Satis Chandra Vidyabhushan, M. R. A. S. (London), Professor, Presidency College; the *quasi*-philosophical treatises of Babu Kisori Lal Sarkar; the Vedanta Fellowship Lectures of Mahamahopadhay Chandra Kant Tarkalankara; Nigudha-Atma-Darsana or a Philosophical treatise in Bengali on the Mysteries of the Atma or soul-Life, by Babu Kali Nath Datta; that exquisite piece of biographical performance—"Ramakrishna-Kathamrita or the Teachings of St. Ramakrishna of Dakhineswar as told by M, one of his most devoted disciples in the very language of the Master;—several books on Ayurvedic Medicine by some of the leading Ayurvedic practitioners of the city; the works of Mr. Satyendra Nath Tagore,—Bombay-Sketches, and Buddhism; the learned works of the late Ramdas Sen of Berhampore lately published by his sons; that highly interesting, instructive and learned work by Babu Purnendu Narayan Singh, Government Pleader, Bankipore—A study of the Bhagavat Purana in English; "The Stray Thoughts on the Gita by a Dreamer" which expound and crystallise some of the finest thoughts on the subject of the Gita; the latest works in prose and verse of Nobin Chandra Sen and Rabindra Nath Tagore: and Rajkrishna Roy and Girish Chandra Ghose; the work on Raj-Yoga by Swami Vivekananda; the productions of Sivnath Sastri the highly original comic productions in Bengali of Mr. Dejen Lal Roy; the lucid commentaries in Bengali on the Hindu philosophical works like the Vedanta-Darsana, &c., by Pandit Kalivara Vedanta-Bagish; and similar works by Pandit Purna Chandra Vedanta-Chunchu, the astrological works of Narayan Chandra Jyotir-ratna; the works

in the department of fiction by R. C. Dutt and Svarna Kumari Devi; all give only a general idea of the kind of work that is being done by some of our reputed scholars and thinkers on this side of India. We have omitted for the present all reference to the scientific and mathematical and antiquarian and philological researches of some of our most distinguished men,—the late Dr. Rajendra Lala Mitra; Dr Mahendra Lal Sircar, Dr. J. C. Bose, Dr. Asutosh Mukhopadhyay, Dr P. C. Roy, Mahamahopadhyay Haraprasad Sastri, Mr. Brajendra Nath Seal, Rai Bahadur Rambrahma Sanyal and others which find their place in the transactions of learned Societies and Congressess and are not ordinarily accessible to the public.

We have also omitted all reference here to the learned works on Law, known as the Tagore Law Lectures which are monuments of Bengalee industry, legal acumen and originality. We have also left out of our present account the names of magazines in Bengalee like the Bharati, the Sahitya, the Bangiya-Sahitya-Parishad, the Sahitya-Sanhita; the Bangadarsana and Prabasi; all conducted by Bengalees. But they all show that the intellectual life of Bengal has not been stagnant of late; but that, on the contrary, it has been showing remarkable activity such as is destined to grow in depth and volume as the days go by. The stream of literary life in Bengal that owed its origin to the labours of Raja Ram Mohon Roy, Iswar Chandra Vidyasagar, Michael Madhusadan Datta, Bunkim Chandra Chatterjee, Hem Chandra Banerjee, Ramdas Sen, Akshay Kumar Datta, Raj Narayan Bose, Dwijendra Nath Tagore, to name only some of the most prominent of the class, has been expanding and fertilising fresh fields of thought and enriching Bengalee literary life.

The latest writer in the field of Bengalee philosophical literature is a gentleman whose name is not given out to the public but whose researches and whose deep insight into the higher problems of life and thought as revealed in his works, and whose encyclopædic knowledge of both Eastern and Western lore entitle him to a far wider recognition than he perhaps desires, but which he amply deserves, not exactly at the hands of the ordinary public whose thoughts are mostly occupied with the grosser concerns of everyday-life, but at the hands of the select few whose thoughts turn upward and whose yearnings mark them out as aspirants after the spiritual goal. The two volumes of our author's *Arya-Sastra Pradip*—appeared some years back and marked him out as a man of special moral, intellectual and spiritual gifts. He has maintained and even enhanced his reputa-

tion as a most thorough-going student of the abstruser problems of human life and society by his masterly dissertation on *Manava Tattva and Varna-Viveka* or the Essential Nature of Man judged from the philosophical standpoint and the Discrimination among the Castes. Judged even from the view-point of mere form, the work takes a high place in the domain of literature. The author has not only done a most valued service to the cause of philosophy, oriental and occidental, but he has also enriched Bengalee literature to an extent which those who are versed alike in English and in Sanskrit, in Western and Eastern learning, will alone be in a position fully to appreciate and understand. Those amongst us who are truly willing to held on the cause of Bengalee literature or of our ancient religious philosophy as explained and enriched by and contrasted with or differentiated from the philosophy of the West could never rest satisfied until they have had opportunities of making themselves familiar with truly original works like the *Arya Sastra Pradip*, and *the Manava Tattva and Varna Viveka.*

EDITOR.

BOOKS RECEIVED

1. **Sri-Sri Rama Krishna Kathamrita** (in Bengalee) Part I. by *M.*, one of Sri-Ramkrishna's devoted disciples: Pages 394.

2. **Ramdas-Granthabali:** or the works in Bengalee of the late Ramdas Sen, Orientalist, Part I. published by his sons Manimahan Sen, Hiranmoy Sen and Bodhisatva Sen, Zemindars, Berhampore, Bengal. Pages 453. Price Rupees two only.

3. **Bauddha-Dharma** or the Religion of Buddha in Bengalee by Mr. Satyendra Nath Tagore, late of the Bombay Civil Service, and author of the Sketches of Bombay in Bengalee: Pages 240. Price Rupees one and a half only.

4. **The Hindu System of Self-culture:** or. the Patanjala Yoga Sastra by Kishori Lal Sarkar, M.A., B.L., author of the Hindu System of Moral Science, and of the Hindu System of Religious Science and Art, published by Sarasi Lal Sarkar, M.A., 121, Cornwallis Street, Calcutta. Pages 160. Price Rupee One only.

We propose to notice these books more at length in future numbers.

THE DAWN

एकरूपेण ह्यवस्थितो योऽर्थः स परमार्थः।

THAT WHICH IS EVER-PERMANENT IN ONE MODE OF BEING IS THE TRUTH.—SANKARA.

WHOLE NO. LXIII. } CALCUTTA, OCTOBER, 1902. { NO. 3. VOL. VI.

INDIAN INDUSTRIES: THEIR PAST HISTORY—A SKETCH.

Modern researches by such eminent *savants* as Sir W. Jones, W. W. Wilson, Professor Max-Muller, Dr. Royle, Sir W. Cunningham, Sir George Birdwood, and others, have established beyond all doubt, the fact that Indian Art, Literature, Science, and Philosophy—all belong to a remote past. But the unfortunate thing about them is that any attempt to trace their history is attended with numerous difficulties owing to a number of circumstances incident to the manners and customs of a people who were eminently religious and whose society being accordingly formulated cared little about temporal concerns. The arts and industries of India were no exception to the general rule.

It is, however, desirable to get some idea of what we mean when we talk of the antiquity of these arts. But this is a task of much difficulty as we have said, from the little attention which used to be paid by our forefathers to the compilation of systematic accounts and to the canons of chronology.

The expression, "*ex oriente lux*" has now almost passed into a proverb being well known to many. Still, in some quarters this phrase is looked upon as vague and indefinite as it does not refer to any one country in particular, as Persia, Babylonia, Assyria or Egypt. We find however in reading the histories of these countries that India is referred to by them as an object of admiration or of desire; and it is thus apparent that the phrase is intended to mean the richness of the ancient Hindoos in their artistic, industrial and decorative productions.

Internal evidence of the antiquity of the Aryan arts we have in the *Vedas*. The hymns of the *Vedas* are considered even by foreigners

to have been composed *at least* 1200 or 1300 years B. C. In these *Vedas* there are numerous hymns, showing the prevalence of the arts and industries in those days. Professor Wilson, in his introduction to the *Vedas,* says: "They were a manufacturing people; for, the art of weaving the labours of the carpenters, and the fabrication of golden and iron mail are alluded to; and what is more remarkable, they were a maritime and mercantile people." In the Codes of Manu also we find frequent references to the artistic and manufacturing genius of the Hindoos. The space at our disposal and the scope of this article will not allow us to support our assertions by elaborate quotations.

As regards external evidences—a host of them may be gathered from the accounts of travels of foreign ambassadors, envoys and sojourners who used to visit the country being attracted to it by its all-round, far-famed perfection; as well as from the inscriptions and etchings that are now being deciphered amidst the ruins of such ancient and historical lands as Egypt, Babylon, &c., which undoubtedly drew upon India for their wealth, both intellectual and material.

That many of these arts have long been practised we know from a variety of proofs, as, for instance, in our rock-cut temples and in the dresses and ornaments of our gods, as well as in the fact of their being indispensably interwoven with the village life of our ancestors. Here also we cannot be profuse, but must give only a single instance. Terry, in his "Voyage to the East Indies," 1665, in describing the people of India, writes:—

"The natives there shew very much ingenuity in their curious manufactures, as in their silk stuffs, which they most artificially weave; some of them very neatly mingled either with silver or gold or with both; as also in making excellent quilts of their stained cloth or of fresh coloured *taffata* lined with their pintadoes, or of their satin lined *taffata* betwixt which they put cotton wool and work them together with silk. They make likewise excellent carpets of their cotton wool in fine mingled colours, some of them three yards broad and of a great length. Some other richer carpets they make all of silk, so artificially mixed as that they so lively represent those flowers and figures made in them. The ground of some other of their very rich carpets is silver or gold, about which are such silken flowers and figures as before I named, most excellently and orderly disposed throughout the whole work. Their skill is likewise exquisite in making of cabinets, boxes, trunks and standishes, curiously wrought within and

without; inlaid with elephant's teeth or mother of pearl, ebony, tortoise shell or wire; they make excellent cups and other things of agate or cornelian; and curious they are in cutting of all manner of stones, diamonds, as well as others. They paint staves or bedsteads, chests or boxes, fruit-dishes or large chargers extremely neat which, when they are not inlaid as before, they cover the wood, first being handsomely turned, with a thick gum, then put their paint on, most artificially made of liquid silver or gold or other lively colours which they use, and after, make it much more beautiful with a very clear varnish put upon it. They are also excellent at limning and will copy out any picture they see to the life."

The arts and sciences, as known to the Hindoos, were reckoned according to Abul Fuzl to be about three hundred in number. The Sanskrit books enumerate 64 *silpas* or fine arts. These are only the leading arts each embracing a number of subordinate divisions. In India everything was hand-wrought, and everything down to the cheapest toy or earthen vessel, was therefore more or less a work of art.

Our space would only allow us to very shortly hint at a few broad divisions of the industries and arts that obtained in ancient India. We would therefore only mention a few important arts and try to give an idea of their past condition for the enlightenment of our readers.

1.—Chemical Arts.

The arts which are strictly chemical may be supposed to have originated only in a country where chemistry had made some advance. Chemistry, it has been inferred, must have originated in Alchemy, which art was in extensive use in ancient India. We know from a variety of sources that the Hindoos have long been acquainted with many chemical substances, as also that they have practised many chemical arts. The ordinary metals including tin they have long known, and they have prepared the oxides of iron, lead, tin and zinc. It is evident therefore that the Hindoos possessed many chemical substances, and that they knew how to prepare others.

The broad head of chemical arts includes a number of minor ones some of which demand special mention. Of these, metallurgy comes first. Though it is difficult to understand how a primitive people could have overcome the difficulties of smelting iron and of forging steel, still since the Hindoos have long known both, they must have somehow overcome those difficulties which proved so great an obstacle

to progress to other peoples. We know that the steel that was manufactured in India was capable of competing with the best prepared in Europe. Iron and steel though not known in the earliest period of the history of some of the civilised nations of antiquity, were known to the Aryans from a very early age. Various descriptions of the manufacture of iron and steel have been given by observers in different parts of India. Mr. Heath, a gentleman previously a managing director of a steel and iron manufactory, writes:—"We can hardly doubt that the tools with which the Egyptians covered their obelisks and temples of porphyry and syenite with hieroglyphics, were made of Indian steel." There is no doubt that the ancient Indian temples and fortresses were covered with steel instruments just as they are at the present day. That they made steel which was highly valued at the time of Alexander the Great, is evident from Porus making him a present of about thirty pounds of steel. And still earlier in *Vedic* ages we find chariots armed with iron and steel weapons, coats of mail and bright-edged hatchets. Even now the best Persian swords are made of steel imported from India, and Mr. Wilkinson has ascribed the markings on the famed Damascus blades to their having been made with Indian steel, which has long formed an article of trade between Bombay and the Persian Gulf.

With regard to home-made arms, we notice such varieties as would appear to belong to different ages of the world, but are all actually in use in India at the present day, *e.g.*, chain and scale armour, both for horse and man, helmets and shields, spears, battle-axes, bows and arrows with daggers of every variety. Some of these display in a remarkable manner our skill as cutlers, as for instance, the sword formed of two blades, and another in 'which pearls are let into the centre of the blade; and still more, the daggers contained one within another, all of hard steel with the line of junction so beautifully welded as to be hardly perceptible even with a magnifier; so also the dagger which on striking separates into five blades as these are nicely brought into juxtaposition.' The twisting of gun barrels and the damasks of our blades of steel have been imitated in all countries. Thus, Indian steel has been famous from the earliest antiquity, and the blades of Damascus, which maintained their pre-eminence even after the blades of Toledo became celebrated, were of Indian steel.

In writing about Indian metallurgy we cannot help making some mention of the exquisite ornaments and decorations of gold and silver that used to be manufactured in past ages. The East and specially India, have from time immemorial maintained a high reputation for the

excellence of its gold and silver work. The Indian goldsmith had sometimes to execute work on a truly colossal scale which no foreign workman has ever attempted to perform. Mention is made of gold and silver ornaments and decorations in the *Vedas*, and although much of the skill that characterised their ancestors has been lost to the present-day gold and silver-smiths, yet we may safely assert that they still excel, as their ancestors excelled, many of their contemporaries in other parts of the world.

We would now only mention a few of the other arts that would come under this head. It would be sufficient if we say that the manufacture and use of copper, brass, bronze, bidery and glass were known to the ancient Hindoos even to a greater extent than they are known to us at the present day. They also excelled in the arts of enamelling, cementing, bleaching, dyeing, calico and other fabric printing, gold printing, and manufacturing different kinds of pottery and earthen works. Lastly, be it said to their credit that our ancestors were also acquainted with the process of making and manufacturing soaps, lacquer-ware, sealing-wax, paper and leather.

2.—Textile Arts.

The scope of this branch of our subject is so vast that a separate volume on it will not even suffice. But considering the limits of our space, we would only give a few important facts showing the prevalence and excellence of the textile arts in ancient India. In the manufacture of textile fabrics we find at once the evidences of civilization, the cultivation of taste, and the progress of the higher industrial arts; for the covering and adornment of the person have claimed the greatest human interest. Cotton, silk and wool constitute the general basis of the textile fabrics; and their manipulation through all the processes of preparation and manufacture into completed goods has taxed the ingenuity of the human brain. Their history, therefore, is far more interesting than the history of anything else because they relate more especially to the welfare of the human body.

The East has, from the earliest times of which we have any record, been famous for its textile fabrics; and India, notwithstanding the great mechanical inventions of the West, is still able to prove her supremacy by producing her "webs of woven air" which her Western rivals try to depreciate by calling them "the shadow of a commodity" although at the same time they try their level best to imitate her.

Cotton.—The use of cotton, and the fact of its being woven into thread, were known so far back as in the age of the *Rig Veda*

where we find such expressions as the "weaver's thread," &c. In the institutes of Manu it is declared, "Let a weaver who has received ten *palás* of cotton thread give them back increased to eleven, &c.,' &c."

Cotton-weaving is an immemorial industry in India. *Gárhá*, *gazi* and other descriptions of coarse cotton fabrics pointed to the first epoch of cotton manufacture in the world, while its highest development was the muslins like "Running Water," "Evening Dew," &c., which were woven in India when Egypt built her pyramids, Solomon reigned in Jerusalem, Romulus founded Rome, and Harun-al-Rashid went his nocturnal rounds in Baghdad.

The chief machines by which the raw cotton was woven into such delicate fabrics which formed the *Tela Ventosa* of the ancients, were looms, spindles, and the primitive wheels called *charkas*. The instrument which the weaver called his loom was only a few pieces of wood and bamboo tied with shreds of twine and thread. The other two machines are widely known, for the grandmothers of many of our readers must have used them some day or other. The cotton industry pervaded the whole of the country from the heights of the Himalayas to the coasts of the Comorin. The extent to which the cotton trade, raw and manufactured, grew in the ancient times, will be inferred from the fact that in India in times past not only clothed her own people with her own cotton, but "the European including the small British demand for cotton goods or calicoes before the seventeenth century was met by importations from India itself." A considerable portion of the population have always lived upon the cotton trade from the days of the Aryan conquest down to quite recent times.

It is gratifying to find that the cotton manufactures still continue pre-eminent for fineness as well as softness. It has been determined that this excellence is not owing to any superiority in the quality of the raw material, for even foreign spinners say that Indian cotton is unfit for delicate wares. The fineness, therefore, is due to the infinite care bestowed by native spinners and weavers on every part of their work, aided as they are by that matchless delicacy of touch for which the Hindoos have always been famous. This is no small advantage considering that the first, the best, and the most perfect of all instruments is the human hand.

Silk.—Next to the cotton manufactures come the silk fabrics which deserve some prominent mention under this head:—

"India has always been famous for her brocades, and frequent allusion is made in the Ramayana and the Mahabharata to fine silken

vestures. It is maintained by Sir George Birdwood that her *kinkhaps* were worn by Ulysses, Helen of Troy, Solomon, Queen Esther, and Herod. When Herod delivered his last oration to the merchants of Tyre and Sidon, Josephus tells us he was dressed in an Indian cloth of silver well-known as *Ruperi*. For over eighteen centuries European Kings, Queens and Princes, not to speak of Asiatic monarchs, have taken a delight in possessing some of the best specimens of Indian silk manufactures, either pure or worked with gold and silver, such as *chandtara*, *mazchar* and *dup-chan*, &c."

Macaulay has recorded that from the looms of Benares went forth the most delicate silks that adorned the balls of St. James's and of the *Petit Trianon*. The silk stuffs from Surat, Tanna Ahmednuggur, the brocades from Ahmedabad, Benares and Hyderabad, and the loongees from Sindh, still command much attention and sale in foreign markets in spite of the keen competition of the China, Japan and English silks. Fabrics were made of the *mulberry* silk, of *tasar* silk, of *eri* silk, *muga* silk, *cricula* silk and Burma silk, and under the East India Company were exported to Europe.

Wool.—Like all other woven stuffs, woollen vests and cloths have been in vogue in India for a long time past, and their history also goes back to antiquity. As the skin of the sheep was probably one of the earliest substances employed for covering the body, so its wool having the property of felting must easily have led to the discovery of some kind of cloth. It is sometimes doubted if woollen textures could ever have attained any perfection in India which is a hot country. In answer it might be said that the climate in India varies very considerably in different parts and to its diversities are due some of the best Shawls, Puttoos and merinos of the country.

Speaking of woollen stuffs, the history of the shawls could not be ignored. There can be no question of the antiquity of the manufacture of shawls in India. The woollen stuff mentioned by Valmiki as forming part of Sita's dress was, according to Heeren, a Cashmere shawl. (Vide *Heeren's Historical Researches*). It is said that there was a time when 30,000 shawl looms could not meet the extraordinary demand for this fabric. The superlative excellence of these productions earned for them such names as "Falling Water," "Liquid Sunshine," &c.

Carpets.—One other important thing deserves to be noticed under the textile arts. It is the manufacture of carpets. Climate chiefly influences the habits and clothing of man. Among the Eastern nations who have to live in warm climates, it is a time-honored practice

to sit in the open air; and it is not therefore surprising that the manufacture of carpets, durries and mats should reach such high eminence here. The best kinds of carpets still come from Mooltan, Mirzapore, Tanjore, Hyderabad, Gorruckpore and Khyrpore.

3.—*Manual Arts.*

It now remains for us to enumerate only the different sorts of industries included under the above head.

Lace-making and embroidery first deserves notice. The laces and embroideries of India were very much prized in the markets of Europe even as they are valued at the present day.

Next comes jewellery; it is wholly unnecessary for us to give any detailed account of the growth and perfection at which this art had arrived.

Stone-carving, and wood-carving had also reached a high standard in ancient India, as would be evident from a look at the different emblems of the gods and goddesses of the Aryans which abound in all parts of the country, and at their shrines and temples that still excite the admiration of the world in respect of their architecture, workmanship and finish.

BHARAT BHANDAR.

INDIAN INDUSTRIES: THEIR PRESENT CONDITION —A SKETCH.

Such then was the condition of the industries of India in the days gone by. A typical Indian village was the cradle of all kinds of arts and manufactures as would appear from the following extract from Sir George Birdwood's excellent dissertation on the "Master Handicrafts of India."

"Outside the entrance of the single village street on an exposed rise of ground the hereditary potter sits by his wheel moulding the swift revolving clay by the natural curves of his hands. At the back of the houses which form the low irregular street there are two or three looms at work in blue and scarlet and gold, the frames hanging between the accacia trees, the yellow flowers of which drop fast on the webs as they are being woven. In the street, the brass and copper smiths are hammering away at their pots and pans, and further down, on the verandah of the rich man's house, is the jeweller working rupees and gold-mohurs into fair jewellery, gold and silver earrings and round tires like the moon, bracelets and tablets and noserings and tinkling ornaments for the feet, taking his designs from the fruits and

flowers around him, or from the traditional forms represented in the paintings and carvings of the great temple which rises over the grove of mangoes and palms at the end of the street above the lotus-covered village tank. At half past three or four in the afternoon, the whole street is lighted up by the moving robes of the women going down to draw water from the tank, each with two or three water jars on her head; and so while they are going and returning in single file, the scene glows like Titan's canvas and moves like the stately procession of the Panathenaic frieze. Later, the men drive in the mild grey kine from the morning plain, the looms are folded up, the copper-smiths are silent, the elders gather in the gates, the lights begin to glimmer in the fast-falling darkness., the feasting and the music are heard on every side, and late into the night songs are sung from the Ramayana and the Mahabharat. The next morning with sunrise, after simple ablutions and adorations performed in the open air before the houses, the same day begins again."

Such then was the daily life going on all over India in the village communities, among a people happy in their simple manners and frugal ways of life, and in the culture derived from the grand tenets of their religion on which they lived and moved and had their daily being, and in which the highest expression of their literature, art and civilisation has been stereotyped for 4000 years.

But those days have passed into History, leaving behind them only a sad memory to be fondled and caressed by a people who are slowly passing towards abject downfall and destruction. Indian handicraftsmen, for the sake of whose works the whole world has been ceaselessly pouring its bullion for 3000 years into India (*vide* Sir George Birdwood's Master 'Handicrafts of India') and who for all the marvellous tissues and embroidery they have wrought, have polluted no rivers, defamed no pleasing prospects, nor poisoned any air; whose skill and individuality, the training of countless generations has developed to the highest perfection; these hereditary handicraftsmen are now being everywhere gathered from their democratic village communities in hundreds and thousands to plod on in gangs in the Government relief-works shovelling the earth from one place to another and carrying it on their drooping heads for the supply of the bare necessaries of life, and sometimes for keeping their body and soul together.

No one can deny the stern fact that the arts and industries are dying out every day; no one can for a moment ignore the plaintive cry of the expiring arts after nearly two centuries of the British rule. Sir

George Birdwood than whom a better authority it would be impossible to find on this subject raises this note of wail in his excellent work, the 'Industrial Arts of India,' and shews conclusively how greatly has India suffered from the decay of her native manufactures. Sir Alexander Cunningham and Messrs. Fergusson and Harrington—all excellent authorities on Indian architecture, sculpture and the allied arts—follow up this note in no uncertain tone. Sir James Caird and Dr. George Watt—names not less known in India—are not slow in admitting that everywhere native workmen and artists are getting out of employment; and Mr. Samuel Smith declared in the House of Commons a few years ago that handicrafts by which ten or fifteen millions of people gained their living, had been destroyed by the substitution of foreign for home manufactures. There are a hundred diverse classes of artisans and labourers at the present moment in India whose fate seems to be well-nigh trembling in the balance, and who if no aid is offered them in the near future, will pass off leaving the country the poorer by their loss. No body can shut his eyes sensibly to the pitiful spectacle that is presented before him by the daily decline of the ancient industries. The jeweller's work of Mysore, Lucknow and Cashmere, the silver filigree work of Cuttuck, Dacca and Murshidabad, the printing of muslins and the enamelling of Jaipore, the cutlery of Peshawar and Burdwan, the mosaic works of Agra, the cane-work of Chittagong, the glazed earthenware of Mooltan, the carpet and rug of Lahore, Amritsar and Benares, not to mention the thousand other specialities in ivory carving, leather work, trinketry, toy-manufacturing—these are all dwindling away for causes into which we need not here enter. Mr. J. S. Cotton writes in his article on *India* contributed to the *English Citizen* series:—"Carpet-making fine embroidery, jewellery, metal work, the damascening of arms, saddlery, carving, paper-making, even architecture and sculpture, have all alike decayed. An India supplying England with its raw products, and in return depending upon England for all its important manufactures is not a picture which the Indian may be asked to look upon complacently and without flinching. It has been said even by Englishmen themselves that Indian handicrafts—each of which was based on a science, literature and mythology of its own—have been, or are being, destroyed by the intervention of Europeans, whether as rivals in trade or as mistaken reformers. Sir Alfred Lyall has truly remarked: From the days of the Romans up to our own time, the Indian trade has drained the gold and silver of Europe. But how distressing it is for us at the present day to think that all our local

manufactures are neglected and are dying out, reducing a once prosperous India to the condition of an abject beggar from door to door for the supply of the bare necessaries of life! The best proof of the decay of our industrial institutions will be found in the fact that so many classes of Indian artists are now giving up their hereditary vocations and are betaking themselves to the tillage of the soil for the support of themselves and their families. The shadow of death seems to have fallen on every genuine Indian industry, and their ultimate disappearance appears only to be a question of time.

BHARAT BHANDAR.

ANALYSIS OF CONSUMPTION AT THE PRESENT DAY OF MANUFACTURED ARTICLES IN INDIAN HOUSEHOLDS.

[By Sir M. M. Bhownaggree, K. C. I. E., M. P.:—adapted from some of his published writings.]

Of the 288,000,000 people who form the population of British India, it is roughly reckoned that 180,000,000 are agriculturists. If we entirely exclude this great sub-division of her inhabitants from the classification mentioned in the preceding sentence and regard it as offering no market for manufactures of skilled industry, we still have upwards of 100,000,000 of people or three times the whole population of the United Kingdom who might fairly be assumed in varying degrees to take such articles in daily use. In respect of the agricultural population, too, it must be remembered that they afford a vast field for the consumption of rough cotton and woollen fabrics, which are at present to a large extent supplied by hand-looms. But confining myself to the consideration of the wants of the 100,000,000 which extend to articles of skilled manufacture, let us try to discover the actual state of things: Let us try to answer the question—what do these one hundred million of India's children *use everyday*?

(*a*). *We will take the humblest individual first.* We will find there metal pots and pans for cooking purposes; kerosine or mineral oil and matches for light; cotton, bone or metal buttons, pins, hooks and eyes, needless and thread, which enter into the preparation of the family garments of rough native-made fabrics. Then there are tacks and nails, twine and string, a hammer, and other tools, in many houses. *All other articles, every one of them is of foreign make.*

(*b*). Peeping into *another household a stage or two up-raised in the social scale,* you find nearly all the articles common to the daily use of a European workingman: most of the culinary utensils

lamps, candles and soap, paper, ink, pen, pencil, not a single one of which is made in India. His house is painted with colour or washes of foreign composition, the woodwork of it is varnished with foreign varnish, his clothes are of European manufacture.

(c). *One degree higher again in the social scale,* and four-fifths of the articles you find in the domicile of a peon, a petty school-master, or a clerk, and on his own and wife's and children's persons, are of foreign make.

(d). Then come the *households of the large middle-class* of the successful and comfortable tradesman, the merchant and the professional man.

(e) There, and in a still greater degree *in the mansions of millionaires and in the palaces of princes,* the predominating proportion of articles is all of foreign manufacture. I try hard to recall to my mind what particular article I should find of Indian workmanship in places like the last. Some critics who do not fall in with my views might point to the furniture. That would make a somewhat important exception if I viewed this considerable part of a household as a superficial observer would, but then he does not remember that, save in the simplest and crudest class of furniture a good proportion of what is known as local manufacture is not native-made at all. The springs of a coach or chair, the lining, the buttons, the thread, the hinges of a cup-board or box, the screw, the nails, the locks, the very tools with which these put together and formed into shape are all made abroad. So that what remains, is the wood and the labour. That even these contribute their due proportion of profit to the native workers I doubt. English firms and European employers in very many instances control the production of the raw material and the labour, and very appropriately take the profit of it, the Indian's gain being the bare living wages of his daily toil.

Next let us turn to articles used as *food* directly or indirectly. Naturally, and thanks to the system of religion and caste, and the observances and customs which are thereby enjoined on the vast bulk of the people, these articles are merely confined to articles of native growth. Wheat, rice, grain and cereals, vegetables and fruit, milk and its products, which form the staple-food for large masses are all supplied by the labour of the agriculturist and the farmer, and as they do not require skilled manipulation, the foreigner has not yet invaded this sphere of the country's produce and supply. But the entire English, Parsee, Eurasian, and Native Christian communities

a fairly large proportion of the Mahomedan population and an appreciable portion of certain Hindu sects,—on whom there lies no obligation on the score of religion and custom, either to abstain from flesh or to avoid eatables not cooked in their own kitchens, are consumers of tinned and preserved provisions, and of wines and spirits. It is difficult to form a correct notion of the aggregate of this class, but placing it at the lowest figure with due regard to the status in life which renders this consumption almost a necessity, there cannot be less than there millions into whose daily dietary foreign provisions and condiments and drinks are included. Although this is not a large proportion of the population, still it is sufficient to furnish forth a good market. We must look at this item not only as regards the amount of money which preserved food carries away from India, but by the light of the waste of raw material, or the diversion into foreign countries of the profits that ought to go into the pockets of the Indian people, as for instance in the case of tea, coffee, and condiments.

We have now before us a picture, in the merest outline of the demand for manufactured articles which exist in India. The extent and condition of that demand can be but inadequately realised from the few facts I have given above; still they are sufficient to show that the needs of the people in this direction are as varied as they are extensive.

M. M. BHOWNAGGREE.

FROM THE LIPS OF A SAINT: THE REALITY AND NATURALNESS OF ALL PRAYER.—XI.

[*Continued from page 53, Vol. VI.*]

(*Rendered into English by Radhakumud Mookerjee, M.A.*)

The worship of God is prevalent everywhere. Wherever there is man's habitation there exist also various instrumentalities of worship. Every man worships and prays to the Lord of creation in a variety of ways. Different countries present diversities in the methods (of worshipping God). Now, we usually have a look only at the outward symbols or places of worship such as the temples: but *where* is He? Where dwelleth the Supreme Ruler, Lord and Father of this wide universe? If He were not to be found, if He were an object of mere speculation, then, verily, the peoples of all countries and in all times had not been so anxious for the doing of their religious duties. As we know, there are places where from time immemorial, divine

celebrations are being held day and night without a break or even a moment's respite. Verily, God is a directly realisable Being and there are some who have so realized Him. A single man's direct vision of God is the hope of a thousand. If even a single man should say 'yes, I have realised Him directly,' then springs up hope in the hearts of thousands upon thousands. Whatever country it is whose history we may happen to read we find that God has manifested His glory there. All this is no mere fancy; for, indeed, God is capable of direct realisation. If through eternity man had been all in the dark about Him he would not, with such yearning, worship Him eternally. He is not the mere word or sound (God) but *He is*:—the eternal Brahman doth abide. Hence if we seek to approach Him in the proper spirit, with the true yearnings of the heart, we *will* have a direct vision of Him. All true worship of Him therefore is a veritable fact. Hence it is that men and women of all countries are constantly unburdening their heart's cravings unto Him. HE is not a mere word of mouth, but He is one capable of direct apprehension or realisation. If we can indeed for once see Him face to face and say to myself, "This is He," verily then our hearts shine forth in splendour and, the whole universe radiates glory and our soul overflows in bliss. Hence it is that the Rishis of old have truly declared: "आनन्दं ब्रह्मणोविद्वान् नबिभेति ,कुतश्चन।"

'[*Translation*:—Whom knowing, the heart attains to ever-present bliss and fear away doth flee for ever.]

He indeed is a mighty a living, ever-present Entity: HE is indeed capable of being seen.

I have heard a narrative which many amongst us might also have heard. It is as follows:—Once upon a time there was a failure of rains in a European town. The devout among the people there, seeing the general suffering, went one night to the church to pray to God to send down rains. With them went also a boy, whom everyone noticed with an umbrella on his shoulders. Then some of the party out of curiosity inquired of him thus: 'Well, none of us have an umbrella here; why do you then take one in this season of drought, in night time and without any evident need?' The boy replied: 'Why, you will be praying for rain and during the rains that will be thus brought about, where should I get an umbrella for my way home if I did not take one now?' All were astonished at the boy's strong faith in the efficacy of prayer. When they got to the church, the pastor offered up prayers in due form. Then, the whole congregration united their hearts in one common voice of prayer, while the boy also prayed

with an uplifted face full of appealing anxiety. Then, when the congregration came out of the church to separate, they saw patches of clouds in the sky which very soon grew into huge masses, overcasting the whole sky and came down in torrents. Then the boy laughed and said to everybody, 'Lo! none of you have brought umbrellas with you; if you did, you might have easily found your way home like me."

Truly, we should be exactly as the boy was if we could *really* believe in the efficacy of our prayers to God, if we could believe in truths that He will remove our pains if we tell them to Him. It is this *faith* which is at the root of the true religious spirit. It is of no avail if we try to convince ourselves *by reasoning* into the belief that prayers are heard. The child goes to its mother whenever it is hungry and asks of her food out of a downright belief that what it will ask of its mother it is sure to get—a faith that has nothing to do with reasoning.—Likewise, if we have a strong *faith* in our hearts, our prayers will emerge of themselves out of the very soul. Indeed, praying is as natural to human beings as the holding with our hands, seeing with our eyes, walking on our feet, &c. For, it *is* prayer when we seek riches from a wealthy man when we want them; or when we ask medical help from the physician. Prayer *is*, whenever there is the desire to remove any felt want. We do even pray to our servants when we ask of them help for the satisfaction of our needs: while the cry, "Oh! brother, help, help!" when we are threatened with a watery grave is similarly also prayer.

[*To be continued.*]

THE RIGHT PURSUIT OF THE PHYSICAL SCIENCES CONSIDERED FROM THE POINT OF VIEW OF INDIVIDUAL AS WELL AS INDIAN NATIONAL REGENERATION.

[*By Mahendra Lal Sircar, M.D., D.L., C.I.E.*]

DISTINGUISHING CHARACTERISTIC OF THE MODERN AGE.

It was a strong conviction that urged me to undertake the task of establishing a national institution for science,* gigantic and ambi-

* The author here refers to the "Indian Association for the Cultivation of Science," Calcutta—of which he is the Founder and Secretary and which has been in existence for over a quarter of a century. The present article is an adaptation from an address delivered by him on the 4th September 1902, at an annual meeting of the Association.—*Editor, Dawn.*

...ous as it is, but the fulfilment of which I considered it the duty of one and all who have the privilege of being born in the classic and sacred soil of India. The conviction is, and it is growing stronger everyday of my life,—the conviction is no other than this—that circumstanced as our country is, with a past which for its intellectual achievements and spiritual developments placed her at the head of the countries of the world in those days and made her their instructress, and with a present having no respite from the invasions and oppressions of physical force—the distinguishing characteristic of the modern age—the only salvation of our country so circumstanced, not to speak of her winning back her lost prestige and taking a place among the civilised countries of the world,—her only salvation lies in our accepting things as they are, and in moving with the spirit of the age in which our lot has been cast. In other words, we must betake ourselves to the culture which has made modern times what they are, and the basis of that culture is pre-eminently the cultivation and advancement of the physical sciences.

MATTER IN RELATION TO MIND: OR ENQUIRY INTO THE LAWS OF SO-CALLED MATTER.

Let me assure you, it is not mere policy to anyhow preserve appearances and save our country which has forced this conviction upon me. It is a sincere faith in the capability of the physical sciences to act as the firm and solid basis of the development and regeneration of man's moral and spiritual nature which has prompted me to make the appeal to my countrymen that I have made to cultivate these sciences as they are being cultivated in the West. If I believed that matter was all, and there was no Mind behind it, that our present conscious existence was to be its last, that the universe has been, is and will be a fleeting show in which all rational creatures play only transitory parts,—in other words, that the Cosmos is but an appearance and no more than a huge delusion, I would have acted otherwise than I have done. I would have taken care to spend my time happily in eating and drinking and being merry for to-morrow we die. I would certainly not have appeared before you now as I feel that the to-morrow here spoken of is for me as certain as to-day.

No, my belief is, I have told you often that what we call matter is but the manifestation of Mind, of the Supreme Mind. I do not identify this matter with the Supreme Mind. What I believe is that it is a creation of the Supreme Mind with the impress of His image upon it, and therefore capable of development from lower to

higher after fixed and eternal laws. I therefore cannot persuade myself to believe, as the greatest thinker of England, and I may say of the world at the present day would have us believe, that consciousness being according to him "a specialised and individualised form of that Infinite and Eternal Energy which transcends both our knowledge and our imagination, at death its elements lapse into the Infinite and Eternal Energy whence they were derived."* The beauty of this pronouncement is that he himself admits that this is "a strange and repugnant conclusion."* Strange, it did not occur to Mr. Herbert Spencer that the Infinite and Eternal Energy which could produce consciousness of such exalted character as manifested in the greatest and noblest human beings, could not avoid the absurdity of extinguishing it for ever, and of thus creating a lie at every step of specialization and individualization. It is consciousness which inspires the conscious being with a sense of personal identity, and to merge all consciousness in itself (that is, in the Infinite and Eternal Energy) is to destroy all sense of personal identity which it was its privilege to bestow.

THE SPIRIT OF THE AGE.

Such being the case, the inquiry into the laws of so-called matter is but an inquiry into the thoughts of the Eternal Mind, and as such cannot but be profitable to all finite beings. And so it has been, so it is, and so it will be, as long as these beings are linked with matter in such intimate relationship that the manifestations and workings of the mind can only take place through a material organization. To despise matter and to neglect the study of its laws is to despise ourselves and to neglect our own interests. This has pre-eminently been the case with ourselves as also with the other Asiatic nations; and we are reaping the fruits of that neglect. One Asiatic nation, who were immeasurably our inferior in ages past when we were in days of our glory, having understood the spirit of the age have acted accordingly and have thereby acquired a co-ordinate position with the foremost nations of the world, and are now the honored allies of the greatest of them all, under whose rule Providence has placed our destiny not without a beneficent design. As I have told you often and often that we are enjoying under the rule of this nation more liberty, more freedom of thought and action, than we ever enjoyed under our own. But alas! that I should live to see that liberty ominously being threatened in a matter which has been the greatest blessing under

* *Vide* the latest work of Mr. Herbert Spencer,—entitled "Facts and Comments."—*Editor, Dawn.*

British rule, which we have learned to prize as our highest privilege and which our forefathers looked upon as the *summum bonum*, indeed the very end and aim of existence.

THE ATTITUDE OF THE INDIAN UNIVERSITIES COMMISSION TOWARDS THE SPREAD OF SCIENTIFIC EDUCATION, AND OF EDUCATION GENERALLY.

You are by this time familiar with the recommendations of the Universities Commission. Without imputing any motives to anybody I cannot but observe, and it breaks my heart to do so that the recommendations of the Commission seem to me to strike at the root of general education, and to discourage the study of science. I have often looked upon Pope's celebrated line as expressive of cant of the worst description, whatever might have been the poet's intention. People, who are never tried of quoting it, forget that in order to attain to great learning we must pass through stages of little learning and that sometimes for a variety of reasons we have to stop at some of these stages. Even what we call great learning is but little learning compared to the vast unknown that must for ever remain to be learnt, and that being so we must, on Pope's principle, deprecate all learning.

I must confess I never expected that the great men who formed the Commission should have virtually allowed themselves to be guided by that cant. It is not my intention to pass in review all their objectionable recommendations. Fortunately that has been done very ably by our distinguished countryman whom we happily have as our honoured Vice-President, Dr. Gooroo Dass Banerji. I can only touch on a few points. In recommending the fixing of a minimum rate of fees for our colleges on the grounds that " fees must not be fixed so low as to tempt a poor student of but ordinary ability to follow a University course which it is not to his real interest to undertake," that " the work of collegiate education has been much impeded by the attendance at colleges of students whose abilities do not qualify them for University education," and that " if a minimum rate of fees is not enforced, the standard of education and discipline is lowered," the Commission have displayed a horror of little learning and a sad want of knowledge of human nature. That they themselves felt the untenability of their recommendation is shown by their immediately adding that no poor but really able student should be excluded, by reason of his poverty from the advantage of the highest education, but these should be secured for him not by charging nominal fees or, by the indiscriminate bestowal of free studentships, or the

estabilshment of free colleges, but by a comprehensive and liberal system of scholarships, provided by the State open to general competition as the result of University examinations. How these scholarships can be availed of by the poor students who are not allowed to enter the University it is not easy to understand. Even if the Matriculation examinations were a sure test of ability, which they are not, no system of scholarship could be made liberal and comprehensive enough by any State or Government, certainly not by the Government of India, to catch all the able and poor students of the country. Just fancy what Mr. Carnegie will think of this recommendation.

The system of scholarships recommended would end in a huge mockery, and the result would be to shut out able and poor students from the portals of the Universities, that is, from the advantages of high education. Besides, as I have hinted, the Matriculation examinations, and indeed examinations as a rule, are not infallible tests of merit at all. Many a student who stood lowest in the list at a first examination, has in subsequent examinations shown brilliant ability. In my humble opinion, to raise fees in our colleges would be to offer a premium to wealthy mediocrity, and to place at a discount real ability. For the habitat of genius, a rare product, one in a million according to Galton, is more the hut and the street than the palace. This contempt of poverty, I am bound to say, was not expected from the highly educated and enlightened gentlemen who formed the Commission.

AN OBSTACLE TO SCIENTIFIC EDUCATION.

The recommendations of the Commission for the abolition of the second-grade colleges, that is, colleges which teach up to the F.A. standard only, and for the limitation of the B.A. to the literary course only, will inevitably have the effect of narrowing the field of general education and of setting an obstacle to scientific education. If these recommendations are carried out, most of the existing colleges will have to be closed. And will not this be disastrous to the cause of education? No one regrets more than I do the inadequate equipment of our colleges generally for the teaching of science, but that some of them do teach well to the B. course of the B.A. degree is shown by the result of the examinations. I do not think that this result is altogether due to cram, and to memory, and not to intelligent understanding of the subjects. I believe a good deal of real scientific knowledge is imparted by the institutions, and grasped by the students. And these institutions, therefore, should not be deprived of the opportunity of imparting that amount of knowledge which is calculated to create a taste for science and to be otherwise useful in

the affairs of life. We cannot expect, in this transition stage of education in this country, to have fully equipped institutions for the teaching of science, and we must endeavour to foster and not destroy those already existing, however, inadequately equipped. The University examinations should be so regulated as to awaken them to their sense of responsibility in this matter so as to compel them to have well-furnished laboratories. I do not think it is possible to have ideally equipped scientific colleges anywhere in the world. We must utilize the materials at hand in the best way we can and not aim at ideal impossibilities.

I am almost sure that the noble Lord at the helm of affairs of this vast dependency, with his broad sympathies and his high statesmanship, will not accept the recommendations of the Commission in their entirety, so far of them at least as affect the growth of general and scientific education. If these recommendations are accepted by the Viceroy, then there will be but one institution in Calcutta, with the exception of the Presidency College and the St. Xavier's College, which will be capable of training students in two or at the most in three branches of science, Physics, Chemistry, Biology, and that is, this Science Association of this city. Now just realize what our responsibility in the matter becomes. The country has arrived at a stage when self-reliance for one and all has become a paramount duty. I have been preaching this duty for a third of a century with scarcely any success. It is now imposed upon us with all the weight of an impending calamity, and we ought to see if we are not capable of rousing ourselves from the torpor that has hitherto possessed us. The rude shock the Universities Commission have given us ought to rouse us from that torpor. The question now is one of money and of a firm resolve to use it properly. There is yet money in the country and we ought not to let the opportunity slip of making the best and noblest use of it in endowing educational institutions, as is being done in Europe and America. In ages past the East set an example to the West. In the revolution of time it is now the turn of the East to follow the example of the West. But we must spend money with an unstinted hand. We must not squander whatever wealth we possess in idle amusements and show our spending power for empty titles. We must prove our enlightened liberality for the amelioration and elevation of our common country.

MAHENDRA LAL SIRCAR.

SVARAJYA-SIDDIH.—XXVIII.

[*Continued from page 61, Vol. VI.*]

(7). We have in the Gita (IX 4, 5, 6), "All this world is pervaded by Me of unmanifested form; all beings dwell in Me and I do not dwell in them. Nor do the beings reside in Me, just behold my Divine Yoga (*i.e.*, my power to bring about mysterious and apparently paradoxical phenomena). My self supports the beings and produces them (but) does not reside in them. Just as the wind blowing everywhere and vast in expanse resides in the *Akasa*, know this that even so all beings reside in Me."*

The meaning is that the Jiva (or the Embodied Self) when it holds a body and keeps it up, is bound down by ignorance and Ahamkara (or egoism), and so remains firmly attached to it, thinking of it as me and mine; but not so with Brahman; though It creates and supports all beings, It does not cling to them; It has no attachment as It is perfectly free from Ahamkara. So that there is no conflict between the non-attachment and the existence of Brahman. This also becomes further clear from the example of the *Akasa*; the air, vast in expanse and existing everywhere on the earth as it is, rests in the *Akasa* or the subtle, ethereal atmosphere which pervades all space; but there is no contact between the two; the *Akasa* does not cling to anything as it is not made up of parts (Avayavas).

This is also supported by such passages in the Sruti as, "असङ्गो न हि सज्जते"—"unclinging, (It) is never attached" (V*r*hadara*n*yaka Up. III-9-28) and "असङ्गोह्ययं पुरुषः"—"This Purusha is un-attached" (*Ibid*-IV-3-15).

(8. 9). That Brahman pervades everything in the universe and that It constitutes their inmost essence, have been very beautifully illustrated by the following stories in the Chh*a*ndogyopanishad. The great sage, *Aruni*, in the course of his expounding the nature of Brahman to his son, Svetaketu, told him, "Bring a fruit of that Banyan tree."

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* मया ततमिदं विश्वं जगदव्यक्तमूर्त्तिना ।
मत्स्थानि सर्व्वभूतानि न चाहं तेष्ववस्थितः ॥
न च मत्स्थानि भूतानि पश्य मे योगमैश्वरम् ।
भूतभृन्न च भूतस्थो ममात्मा भूतभावनः ॥
यथाकाशस्थितो नित्यं वायुः सर्व्वत्रगो महान् ।
तथा सर्व्वाणि भूतानि मत्स्थानीत्युपधारय ॥

"Here it is, sir," said the son, as he brought a fruit and showed it to his father.

'Break it open.'—'It is broken, sir.'

'What dost thou see there?'—'These extremely minute seeds, sir.'

'Break open one of these, my dear.'—'It is broken, sir.'

'What dost thou see there (inside the seed)?'—'I see nothing, sir.'

'My child,' said the father to the son, 'this subltest essence which thou dost not see, even from that subtle essence, my dear, does this large tree derive its existence. Believe me, my dear. That which is this subtle essence—in That has all this its self. That is the truth; that is the self. That thou art. O Svetaketu.'

"Explain this to me, again, sir." "So be it, my dear," said he.

"Put this lump of salt into water, and see me in the morning." The son did the same. Next morning, the father said to the son, 'Well, my dear, bring me the salt which you put into the water last night." Looking for it, he could not find it as it had all melted. "My child, taste this melted salt from the surface. How do you find it?"—"It is salt."

"Taste it from the middle, how is it?"—'It is salt.'

'Taste it from the bottom, how is it?'—'It is salt.'

'Leave off this water and come to me.' He did so. Then the father said to him. 'That exists for ever. In this (body) also, my dear, thou dost not see the Being; but it is there.'

Just as the salt melted in the water cannot be perceived by the eyes, though it pervades every part of it but is perceptible by the sense of touch, so also Brahman, though not cognisable by the senses, pervades everything in the world and can be known by other means.

(10). We have in the *S*vetasvataropanishad (II), "साक्षी चेता केवलो निर्गुणश्च"—"He is the observer, intelligent, unattached and without any attributes."

(11). In the V*r*hada*r*a*n*yaka (III-7-23) it is said, "नान्योऽतोऽस्ति द्रष्टा नान्योऽतोऽस्ति श्रोता"—'There is no other seer but This, there is no other hearer but This."

(13). The last and perhaps the best argument to prove the existence of Brahman, is direct, inward, self-perception. Everyone has a consciousness of existence. In every act of experience he has such a cognoscence as '*I* perceive this,' '*I* know this'; that

is, in every case he perceives or cognises that his '*I*' is ever existent; or, in other words, the consciousness of his self-existence arises always simultaneously with his perception of phenomena—the consciousness of the Self never fails; therefore the Self exists. Says the Panchadas*i*, 'How can the *S*astras convince that (inert) block of stone in human form in whom there is no consciousness of perception. Just as if a man were to say, 'I don't know whether I have a tongue or not,' his words would be for his shame only, so also would be the expression, 'I have no consciousness of perception.'*

आत्मत्वादौ चिदत्वादखिलवपुषितया प्राक्तयोनित्यवादात्
कामाभिध्योपदेशाच्छ्रुतिपथनुखद्योतिभाक्तपतोक्तेः ।
साक्षादेवापरोक्षादसुहृतताध्यक्षसाक्षित्ववादात्
सर्वभ्रमादिशब्दात् स्फुटवचनशतेश्चापि सच्चित्स्वभावम् ॥ ३० ॥

DURGACHARAN VEDANTA-SAMKYA-TIRTHA.
HARANCHANDRA CHAKLADAR, M.A.

SOME AUTHORS I HAVE KNOWN.

[We are indebted to the courtesy of the Northern Newspaper Syndicate, America, for the present article.—Editor.]

What delightful memories I have of personal intercourse with many well-known authors—in some cases friends of my father before I knew them, and then my friends also. Authors as a rule are most pleasant people to know—especially novelists —but it is only natural that those who have made human character their study should themselves be full of human interest.

BLACKMORE.

I often wish I had made notes of some, for instance, of the many stories, incidents and adventures related to me by the author of "Lorna Doone" at diffe rent times during the last twenty-five years of his life. Mr. Blackmore had a

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* बोधेऽप्यनुभवो यस्य न कथञ्चन जायते ।
तं कथं बोधयेत् शास्त्रं लोष्टं नरसमाकृतिम् ॥
जिह्वा मेऽस्ति न वेत्युक्तिर्लज्जायै केवलं यथा ।
न बुध्यते मया बोधो बोद्धव्य इति तादृशी ॥ पञ्चदशी ३—१९,२० ॥

curious and pleasant way of laying stress on certain words in a sentence when talking, and often of dividing the empha-sis in one word even, so that there was something musical in his cheery "pull your chair up closer to the fi-*er*; will you have a ci-*garre* or a pipe of tôbarko;" written words can convey little idea, but in tobacco, for instance, he usually pronounced the "to" softly and the "bacco" came in a sonorous "bark-oh;" it was the same with cigar, a quiet "ci" and gar became gar-rah—almost German in sound. For many years, when I first knew him, Mr. Blackmore smoked a meerschaum pipe—or rather pipes. On his chimney-piece was a fine collection—some of the pipes were relics from his student days at Oxford, each with its history which he told with great gusto, the while he polished it lovingly with a silk handkerchief. He was very proud, or pretended to be, of having invented a meerschaum pipe which would stand upright resting on the bowl, from the lower part of which were two elbow-like projections, one on each side. Mr. Blackmore's pipes always reminded him of some quaint story. It was great to watch him carefully loading his pipe, looking at the fire, its reflection gleaming in his eye, as his face lit up with a smile at the memory of some droll incident perhaps of his boyhood days, when he was at Blundell's School. "Did I ever tell you a story of how I paid out Temple (the present Archbishop of Canterbury) for hitting me on the head with his little brass hammer?" "Temple" was at Blundell's with Blackmore, and evidently a bit of a despot in his position as head boy of the school. A few years after I first met Mr. Blackmore I bought *The Fishing Gazette*, and he being an enthusiastic angler took great interest in it, and wrote for it occasionally, and often to me about it, always addressing me as "My dear Piscator." Some years before he died Mr. Blackmore gave me a wonderful book of hackles and other feathers for fly-making, which had been left to him by his old friend Parson Gould, of Porlock, about whom he had some very droll stories.

BLACK.

Another friend, the late Mr. William Black, was also a keen salmon angler, and took much interest in my little angling paper. I had great times with him salmon fishing in the north of Scotland, and I do not know which was more enjoyable—fishing with him in the day or listening to him at night, when he and another friend and I sat round a great peat fire, while the "wolves howled," as Black said of the March gale which threatened to sweep the Lodge away.

The river we fished was the Oykell, one of the loveliest little salmon rivers imaginable, with a wonderful variety of pools and all fishable from the bank or by wading. Everybody who has read Mr. William Black's charming stories knows how well he could paint the beauty of a Highland scene—the play of light on stream, and sea, and cloud, the purple gleam of heather, the sunset on the hills. I can see him now, as we walk home to the Lodge, in the evening, stop and look along the strath at the hillside beyond, then he would call to us, and point out the wonderful blending of colour where the foot of the hills met the edge of the strath, first a long bar of silvery grey where the mist from the river hung over it, then a broad band of richest purple like a velvet pall, where the dark underwood absorbed the light; above, standing out boldly from the hill top, the ruddy glowing fir trees backed with a sky of liquid emerald in which gleamed, like a diamond, some evening star. But the most gorgeous sunsets I have ever seen were when fishing on the Norfolk Broads.

On the first occasion I fished for salmon with Mr. Black, I am sure that he thought I was a perfect duffer; it was late in the afternoon after travelling for about sixteen hours, the last part of the journey a long drive in an icy wind. I felt more like bed than fishing, but Black said he had reserved a cast or two for me near the Lodge, so instead of going to bed I had to get into my salmon waders and brogues, and tramp off to the river. Arrived there, I put together a split cane salmon rod which I had never used before and never used

again, and then Black said, "Marston, you see that long white snake-like thing under the water there." I said I saw it. "Well, that's a sort of a mixture of rock and stones which you must creep along carefully as you fish the pool down, and remember the water is pretty deep on each side of it, so mind how you tumble in." I managed somehow to get out along the ridge, and commenced casting my fly, or trying to do so, for I found the rod was absolutely without backbone, and would neither lift the line off the water nor send it through the air. I was still faint from the cold ride, the rushing water swirling up to my waist was icy cold, I could hardly get twenty yards of line out and not fish that, and there on the bank were two salmon anglers, and two Scotch gillies, watching me! Presently a salmon came at my fly. I struck, but the weak rod was no help and the fly came away. The same thing happened again, and then I called out that it was no use, I could not fish a bit. I meant that I could not fish with that rod, and as I then felt, but I knew my friends looked upon it as being pretty near the actual truth, and I did not blame them. At dinner I explained that I really could fish a bit, that I felt quite unequal to fishing that afternoon, blamed the rod and so on. I remember Black looking at me very solemnly and saying, "Well, Marston, if you don't do better than you did this afternoon, we are going to write to the editor of the *Fishing Gazette*, and show you up as a fraud." As I was the editor in question, we all had a good laugh at my expense. However, I had a fine greenheart salmon rod in my rod case, and after a few hours' practice next day began to get my hand in again, and shortly after I one day killed six lovely fresh-run salmon—the best take any of us had; though next day Black got four and Morten five fish. Alas, my friends Blackmore, Black, and Morten are dead, and I shall only in memory fish again with them.

GENERAL GORDON.

Some of the most successful works which publishers bring out are suggested by them. I remember suggesting

one which, although it was never written, gave rise to an occasion I shall never forget. When General Gordon was home after his victories in China, I suggested to my father that we should ask him to write an account of his life. He called in reply to the suggestion, but only to say that he could not write as he really had done nothing to write about, and it was perfectly clear that he meant what he said so modestly,—but to have shaken hands with General Gordon is in itself a memory to treasure.

KIPLING.

It is difficult nowadays to trace the effect of one good review on a book; but I can give an instance from my own experience where one good review was the means of selling hundreds of thousands of copies of an author's works. It was in the old days of *The Saturday Review*. I was so much impressed by a review in it of some stories by a Mr. Rudyard Kipling, which had been published in India that I wrote to the publishers in India, and suggested that we should re-publish the stories in this country, and to this they agreed—one of the conditions they made being that the books should be reproduced in the same style as their Indian editions, as they wished to use our stock for their market. I had pointed out that the form of their edition, a thin 8vo in French grey paper cover, was not the best form for our market; but they preferred to have them in that way, and so we published at one shilling each, edition after edition of "Soldiers Three," "The Story of the Gadsbys," "Under the Deodars," "Pham tom Rickshaw," &c. We sent the brilliant stories to all the chief papers for review, and well and widely noticed they were. We spent hundreds of pounds in advertising them, and sold hundreds of thousands of copies all over the English-speaking world—a result which followed solely from my having read that powerful notice in the *Saturday*.

A year or two afterwards I was surprised by a visit from Mr. Kipling, who came into my office, shook me by the hand and said he felt he must come and thank me. I said "what

for?"—thinking that it was for having introduced his works to the British public—for he was practically unknown here until we did so. "What for?" he said. "Why, for the *Fishing Gazette.* I am an angler."

Some months ago I read a review in the New York *Nation* of Captain Slocum's "Sailing alone around the World." I have always had a great respect for the reviews in the *Nation*, and I at once sent to the American publishers for a copy of Captain Slocum's book. I was delighted with it, as I think everybody who reads it must be, and we arranged to publish it in this country, and already have brought out three editions.

R. B. MARSTON.

RATIONALISM *Versus* REVERENCE: OR THE ABUSE OF THE REASONING FACULTY IN MATTERS RELIGIOUS.

In these days when pure intellectualism has taken precedence of all other human faculties and instincts and has established an autocracy for itself dominating all matters social, religious and political, it has been the growing fashion for almost everybody, whenever any religious doctrine or opinion presents itself to his notice, to ask with a supercilious air of self-conferred importance "Is it consonant with reason?" as if the reasoning faculty referred to by the speaker was something absolute, unchangeable or infallible. Even if you tell a child in his pinafore not to walk into a temple with his shoes on, he or she will at once answer you, "Well, what is in a shoe? It is made of the skin of a dead animal and we have also skin on our body," &c., &c. This is the specimen of reasoning which often proves a source of great vexation and disappointment to a really well-meaning man. It might seem a trifling matter and merely theoretical; but if we view it seriously we shall find that it is really working a great revolution in our society. A habit of using the reason, in season and out of season, ends in haughtiness, dogmatism, petulence, impatience of authority, irreverence towards superiors in age or in experience and is therefore a canker of society. In referring everything to our reasoning faculty we forget that by it we mean the particular reasoning faculty possessed by the individual speaker and not any reasoning faculty in the abstract There is no doubt about the fact that the average

reasoning faculty of the common run of men and even of the educated classes is far below that ideally perfect reasoning faculty that can give impartial, uncoloured, unvarnished, unprejudiced, in a word, *true verdicts* on every question. To possess an ideal reasoning faculty for a man of the world is well-nigh an impossibility, circumscribed as he is by the limitations of time and space, by passions and prejudices, by motives of self-interest, by bonds of affection and so forth. Sometimes these clogs lie on the surface and can be easily detected, sometimes they remain in disguise, and then it is very difficult to bring them out and eliminate them. Sometimes it is family affection, sometimes a personal pique or idiosyncrasy, sometimes race interest, sometimes class interest, sometimes political interest. Sometimes a mixture of several interests is brought to bear on a question, some of them being more remote than others, lurking in subconscious regions. The Hindu Philosophy calls these passions, interests, &c., रिपु*'s* or enemies, as they are enemies against looking at things in their true light, and therefore of self-culture, and they are said to be the offspring of रजोगुण, as the *Gita* says :—

काम एष क्रोध एष रजोगुणसमुद्भवः ।
महाशनो महापाप्मा विद्ध्येनमिह वैरिणम् ॥
धूमेनाव्रियते वह्निर्यथादर्शो मलेन च ।
यथोल्बेनावृतो गर्भस्तथा तेनेदमावृतम् ॥
आवृतं ज्ञानमेतेन ज्ञानिनो नित्यवैरिणा ।
कामरूपेण कौन्तेय दुष्पूरेणानलेन च ॥
इन्द्रियाणि मनो बुद्धिरस्याधिष्ठानमुच्यते ।
एतैर्विमोहयत्येष ज्ञानमावृत्य देहिनम् ॥

i.e., desires (or appetites) and passions (anger) are the outcome of रजोगुण । These are peccant and insatiable. Know these to be enemies in this world. Just as the fire is covered by smoke, just as the mirror is covered by filth, just as the fœtus is covered by the womb, so appetites and passions cover true light of knowledge. Kaunteya! this inveterate enemy of the truth-seeker, this insatiable fire of desires obscures the reason. The senses, the mind and the understanding are said to be the seat of this fire; through these it deludeth the embodied creature shrouding his *wisdom.*

Thus these subtle foes that interfere with a true interpretation of any question are mainly responsible for our inability to arrive at the truth. They also account for the diverse opinions that prevail among the most learned and enlightened men on the same problems. They

can further be illustrated from our everyday experiences. We all know that what we see under one set of circumstances, we cannot see if the circumstances are altered. It often happens that if we read a book again, some years after its first perusal, we get an entirely new light from it. Many things which we overlooked at first as being insignificant or unimportant begin to assume considerable importance. Trifles and details which we formerly passed over loom out into prominence. The reason of the same book appealing to us in such strikingly different manner must be sought in the fact that what we call reasoning faculty is not a constant quantity but a variable factor. In the particular instance, three things have happened: (1) the reasoning faculty has developed during the period between the first and second readings; (2) the ideas imbibed by the mind at the first reading have fructified in the brain; (3) my experience of the world has greatly increased, so that I have cultivated acquaintance with and have learnt to take interest in many things which I used to neglect before.

If we study the history of Scientific Literature, we shall very clearly understand how very deceptive the reasoning faculty is, or rather how very vitiated our *ordinary* reasoning faculty is. The theories of light, electricity, heat, &c., propounded in one age are upset by a succeeding age and we are still in the dark as to the exact nature of these. If we examine the sciences in such close scrutiny, which if we are true to ourselves we must do, we shall find that they are still based on erroneous adumbrations of truth, theories, &c., and are still far from that perfect knowledge which alone can justify us in making it the guiding principle of our life.

It may be said that reasoning is our only means of attaining knowledge and it will not do to condemn it. I however do not object to the employment and cultivation of the reasoning faculty, but I rather condemn the abuse of this faculty and the haphazard and indiscriminate way in which it is used, especially when such a serious subject as religion is concerned. Reasoning is a good servant but a bad master. Reasoning will be of use to us in the discovery of truth so long as we keep it within proper bounds, but it will blindfold us if we allow it to rise superior to our common-sense, instincts, intuitions, inner vision, &c. In fact intuition is the quintessence of reasoning. It is the fruitful source from which we derive materials for arguments. We first catch an idea by instinct or intuition and then give it shape, colour, flesh and blood by recasting it in logical form, in order to present it to the public view. The greatest discoveries have been first caught by such instinct or intuition and then unfolded

and analysed in the language of reasoning to explain it to others. Newton saw by one touch of divine instinct that the apple fell to the ground because the earth attracted it. In this act of inner vision was contained the whole complexity of the Law of Gravitation as the plant is contained in the seed. The *highest* truths both in Science and Philosophy have proceeded from instinct, from inner vision, inspiration, revelation and not by the precarious, factitious process of soul-less reasoning.

Again reasoning is handicapped by many limitations. It can appeal only to a particular class of men, to a particular temperament or mood and to a particular age. Reasoning implies consciousness and consciousness implies effort. Evidently, therefore, reason can be congenial to us when we have sufficient leisure and are in a cheerful temperament. But in the hurry of life such opportune moments are rare. We are generally taken by surprise, behind our backs, as it were, when your reason will offer but sorry consolation. In our dangers and difficulties, in our grief or joy, in our vexations and perplexities we seldom act at the instance of our reasoning faculty, but are rather prompted by impulse or instinct. There are times when logic becomes positively repulsive. Tennyson when bewailing the loss of his beloved friend, Hallam, did not find reason an adequate means of stemning the tide of overflowing grief in his heart. He did not attempt to solve the problems of the immortality of the soul, the conception of God and other deep questions with which the loss of his dear friend was associated, by means of reasoning. For,

"A warmth within the breast would melt
The freezing reason's colder part
And like a man in wrath the heart
Stood up and answered '*I have felt.*'"

Lastly, reasoning will scarcely reach up to the vast majority of the ignorant classes. Rhetoric and eloquence will appeal more to these than dry logic. It is quite plain, therefore, that in our attempts to explain religious doctrines through reasoning very many limits are set to us. First of all, we are to choose the educated class; secondly, those of them that have sufficient leisure and are in good humour; thirdly, this can happen only when the country enjoys peace and prosperity. Even if we admit reasoning, we never give it a place in the inner sanctuary of our heart. Truths imparted by means of reasoning always loiter on the vestibule of the temple. Doubt is the

twin-brother of reasoning. It is the inevitable after-effect of a logical conclusion painfully drawn.

Thus in every way we see that reasoning is the most delusive, feeble and insecure means for imparting religious truths, and to build a religion on logic is to construct a house on sand. It will not stand the waves and tides of time. If the Hindu religion were built on logic merely, it would never have survived the great political tempests that have from time to time beat against it. Not that it is inconsistent with logic, but that its truths are imbedded in traditions, forms, customs and institutions, as the gems are imbedded in gold. The religious forms and institutions laid down by the Hindu Shastras are consistent with the highest logic and fulfil the highest spiritual needs. In observing them we shall be imbibing the highest spiritual influences and because they are so subtle, so unconscious, so silent in their operation, they are all the more effective. We can get a parallel for it in the operation of the Laws of Nature. They are working silently and slowly upon us, yet their effect is not the less sure or less effective on that account We never become aware that we are under the Law of Gravitation and yet we cannot escape from it. The moment we infringe it we shall be visited with punishments. Similarly, the moment, we act in contravention of the Laws of the Spirit embodied in our religious institutions and rituals we will begin to feel the evil effects.

One of the modern saints has said : "Jnan or knowledge is male *Bhakti* is female. The former has access only to the outside of God's temple, but *Bhakti* alone is privileged to go into the inner apartments (or Andarmahal)." Our highest truths are those for which we can assign no cold, syllogistic reasoning, but of which we can say like Tennyson.

"I have felt."

[*To be continued.*]

AMULYA CHANDRA AIKAT, M.A.

THE DAWN

एकरूपेण ह्यवस्थितो योऽर्थः स परमार्थः।

THAT WHICH IS EVER-PERMANENT IN ONE MODE OF BEING IS THE TRUTH.—*SANKARA*.

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PERPETUATION OF HISTORIC MEMORIES.

[Being thoughts suggested by the occasion of the anniversary of the death of Raja Ram Mohan Roy.]

I.

MAN'S ASSOCIATION WITH NATURE: THE PECULIARITY OF BHARATVARSHA.

Once more, the revolution of the heavens has brought us our national, commemorative sacrament.* Nature is cyclical, wheeling on in endless procession. The sun and the stars dance in an eternal round; the seasons bring back the hour of glory in the grass, and freshness in the flower. Nature is cyclical, nature is sempiternal; her purple regalities and blue immensities, her moon-light enchantments and nocturnal mysteries, are same in their recurrence and recurrent in their sameness. But man flits across the scene like a phantom. The elemental forces, the consecrated symbols of his Humanity are dispersed in air,—vanish into nothing. Man is an alien, an uninvited guest at the Banquet of Nature.

Nay, no guest, but an alien, for the festal sacrifice. The sense of nothingness burnt into his soul, the doom of perishableness written on his brow, man stands a victim at the stake,—his race to be offered up as a holocaust on the altar of a blind inexorable Necessity. But his thoughts stray, wander, through eternity. A dim vision of endless possibilities, of infinite worlds and untried varieties of being—glimpses and revisitings from beyond the sun—whispers from the circum-ambient Deep, heard in the stillness of the soul's wilderness--haunt him in the darkness of the grave; and lo! his *silhouette* is projected over the heavens, his shadow lifted above what is of the earth, earthy. The pathos, the mystery, the sanctity of death itself crowns his forehead, and gives him a sublime tragic repose. Man stands self-collected at the stake, a half-curious, half-amused spectator of the contentment and completeness of Nature's life.

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* The anniversary of the death of Raja Rammohan Roy is celebrated in Calcutta as well as in various other parts of the country on the 27th September.—*Ed.*

Presently Man enters into partnership with Nature. Death and life play into each other's hands. The sempiternity of Nature, her renovations and resurrections, are shared by her associate Man. Humanity and its festivals become cyclical with the cycles of the heavens, processional with the process of the suns. Man is clothed with immortality as with a veil, and his sanctities and pieties, his martyrdoms and heroisms, his ecstasies and agonies, like ghosts, revisit the earth, their former scene, with the regularity of the seasons and the tides,—and their amaranth bloom is daily renewed, daily refreshed, with the votive tears and offerings of the heart.

How far have we as a nation entered into this penumbra of immortality,—shared in this fellowship which humanises nature and naturalises man? Where are our consecrated symbols, our pious rites, our national festivals of Humanity? Historic Man and his historic appearances—where among us are the pilgrims' shrines and temples dedicated to him—where the calendar of his saints,—where his holiday or festival cherished in our national consciousness? Thou Bharata-varsha, land of pilgrimages and shrines!—but it is the Absolute, the Ubiquitous, the Infinite thou seekest and adorest amidst the illimitable ranges of the glacier-clad Himalayas, or the sempiternal roar of the vasty Indian Deep! Man is overwhelmed, lost, sunk into nothing, in these infinitudes; and only the bleak, blank, desolate spirit is—the all-in-all, the universal grey in which everything appears grey. Yes, ours is the templeless temple, the shrineless shrine, for the Universal Inanity. There are no historic land-marks in the ocean, the sky and the hills; neither are their human boundary-stones in Bharata varsha. Endless generations of pilgrims have footed this trackless path and vanished evermore: the measureless tread, the never-ending ever-beginning march of the generations, whispers in the dim corridors of Time, whispers and reverberates into a roll of far-off thunder. The individual is lost in the countless stream, the human is lost in the unconscious Ubiquity.

Thou Bharata-varsha! land of AVATARS and LILAS, thou hast dedicated countless shrines and pilgrimages to the supra-human and the infra-human! The non-human, the non-historic claim thy land and thy people for their own. A half-buried Sphinx in the spirit's wilderness, mute witness of timeless time and changeless change,—a half-buried Sphinx in the wilderness,—this is thy Genius, Oh Bharata-varsha!

II.

THE PICTURE OF HISTORIC ETERNITY; THE PERPETUATION OF HISTORIC MEMORIES: ROME; PARIS.

Once, in an imperial assembly of the world's savants, amidst the ruins in the Capitol where long lines of Emperors and Porphyro-geniti looked down from marble pedestal or sarco-phagus,—in the heart of the Eternal City, Rome the ever-old, Rome the ever-new, at once the Mighty Mother, the Imperatrix and the mater Church of the world of man, *fons-et origo*, of the creed of Historic Eternity,—it was my proud privilege as

the representative of Brahminism, to proclaim the message of another Eternal Order, the Spiritual Eternal, the cult of the Universal, the Infinite in man, before which the world and the world's history pass away, in which Space itself vanishes into the Spaceless, and Time expires in the Timeless.

[*N.B.*—Principal Brajendra Nath Seal, M.A., was one of India's Representatives at the Congress of Orientalists in Rome, October, 1899, where he distinguished himself by his paper on "Comparative Studies in Vaishnavism and Christianity with an Introduction on the Historico-Comparative Method." We make the following extract from his Introduction just to give the reader some idea of Principal Seal's standpoint.—"Besides this theoretical interest, Vaishnavism must possess a deep practical significance, as it is fitted to contribute very valuable elements to the European Renaissance of the coming century. The Christian's love to God is summed up in Sonship, occasionally varied by the attitude of a servant or a friend. Compared with this, the range and depth of the Vaishnava sentiment must be confessed to be a new revelation of the divine possibilities of human love. The Vaishnava Sakhya (सख्य) and Madhurya (माधुर्य), and the species of Bhakti taught by Narada must come as a new gospel of love to every devout Christian soul, and the Vaishnava conception of 'Life everlasting' in this earthly life, and of God manifesting himself in the various relations of man and man, will be acceptable to an age saturated with the Positivist sentiment and the Humanity of Christ."—Editor, *Dawn.*]

To-day, brethren, standing by the cenotaph of the patriarch and law-giver of modern India, from the vantage-ground of the spirit's watch-tower, from which he reconnoitred the forces and surveyed the march of mankind, I bring back the message of Roman Civilisation, the cult of the Human in the Universal, and the Passion in the Infinite—the creed of Historic Man and his fellowship with Nature and Nature's cyclical life—the festivals and holiday observances, renewing the heroisms and sanctities of Historic Man, transplanting them as nurslings of immortality, and clothing Nature's alien sun-rises and sun-sets with a glory not their own and thoughts too deep for tears.

Yea, they have made the Human and the Historic not only participate in the order and revolution of the heavens, not only cyclical and processional, but also abiding presences like the immensities of sea and sky. Breathing from pedestal and canvas, speaking from memorial column and arch, ruling with holiday observance and sacramental rite, these monumental cities of the West are greater Omergaus, rehearsing as in a perennial mystery-play the Passion of Humanity, its Agony, and its Hope of Resurrection.

Historic Eternity, double-visaged! Janus-faced, thy name is Rome, thy name is Paris!—Rome-Paris,-Paris-Rome, the ancient and the modern, the Mighty Mother and the Mistress of the world.

Rome! Rome! Rome!—Rome is a vast amphitheatre rising tier above tier, ruin on ruin, rampart over rampart—rising from the dark deeps and hollows—mounting in terraced hills, in winding ascents that painfully struggle up to the light,—mounting higher and higher into the blue immensity. Her foot is on the antique ruins, deep down in the dark passages, the Trajan Forum excavations and the Coliseum pit, the subterraneous Cloaca Maxima, and the vaulted Catacombs. Her loins are girt with the mediæval gloom, the devotional twilight of the Basilicas, the cadaverous glimmer of the monastic mortuaries, and the deathlike stillness of the Churches and convents, often growing like arabesques and grotseques out of the body of the Pagan temples, but aspiring heaven-ward in their steeples and spires! But towering above these, on the Pinician Hill and the Janiculan, which you mount in flights of terraces and winding spirals, stands the Genius of Modern Rome, of Federated Italy, outlined against the blue southern sky, and looking down in majesty on the wilderness at her feet,—a wilderness of man's dreams and adorations, loves and sighs, idle tears and divine despairs, in marble and stucco, canvas and paint, carving and mould. But look from the Pincio or the Gianicolo, as you will, the soaring majesty of St. Peter's Dome, that floating Vision in mid air, overshadows your prospect, and even the brute Coliseum, that mammoth of stone, is an unseen presence.

Yes, Rome is an amphitheatre of the Ages, rising epoch above epoch, civilisation on civilisation.

Thy other name, O Historic Eternity—Paris! Paris is a fabric of music, an architectural symphony of a Mozart,—the flesh and carnation of Raphael's Eve—the Madonna-Mistress of Andrea del Sarto—a creature wriggling, coiling in its naked loveliness, hissing with the serpentine grace and passion.

Paris, the city-wife by day,—the Bride of Night! O the Nights of Paris more magical than the Arabian Nights,—flaring up in thousand glares in the Rue de Rivoli and the Hotel de Ville, in the thousand cafe concerts,—blinded with stunning gloom in Faubourgs about Montmartre—pierced with rippling bursts of merriment and laughter, and vibrating to dance and song and revel in the thousand casinos and saloons! Paris, *en deshabille*, somnambulating in the boulevards!

But behold the Magdalene woman washing the foot of the Lord's Anointed! Paris is the New Jerusalem of the cult of Humanity—of Historic Eternity. Equally in her Faubourg St. Antoine and her Pere La Chaise,—her Champs d'Elysees, and her Bois du Bulogne—her Hotel des

Invalides and her Place de la Concorde,—is the new Revelation of Man, enacted day after day, night after night. Every stone stair and balustrade, every facade and portico, every Place or boulevard, is stained with the blood of the martyrs of Humanity. These are the authentic scenes of the Passion Play of Man.

But it was at the celebration of the twenty-fifth centenary of the foundation of Marseilles that I saw a new and wonderful development of this creed. I saw the Sacrament of Historic Eternity here celebrated with the pomp of David's consecration of the Temple, the Lord descending with his Host,—a sacrament rousing a whole people to the saint's devotional ecstasy and to imaginative ardours of a divine poetic creativeness, and crowding the many-vistaed life of twenty-five centuries, into a glorious month, a gloriou week, a glorious moment. Day and night, and night and day, every man, woman and child in Marseilles congregrated under the blue canopy of the Heavens congregated, in an endless monstrous moving mass to witness with a million upturned faces the eventful Resurrection of the Past, the fate-fraught Revelation of the Future—to witness the landing of the Phoceans twenty-five centuries ago, their struggles with the Iberians, their settlements and concords in the dim pre-Christian era,—the moving pomp and pageantry of mediæval castles, giants and knights-errant—the siege of the city in the fourteenth century, the Governor delivering up the keys of the fortress,—the military cavalcade, the council chamber, the badges and emblems of the city's peaceful industries,—the crowned figures, of Liberty and Marseilles towering high on the tops of columns, and Fraternity and Brotherly embrace beaming forth from the million faces below.

III.
THE HISTORIC CREED FOR MODERN INDIA: A SUGGESTION.

Standing, I say, by the cenotaph of our Spiritual Father, I ask you brethren, to brood on the secret of this wonderful resurrection, to learn the magic of this triumphant Renovation,—to initiate the cult of Historic Eternity by instituting fetes, festivals and federal gatherings of national life, and establishing pilgrimages and shrines dedicated to the heroes, the martyrs, the saints of the Father-land;—and, as is meet, to consecrate our national Pantheon or Valhalla of the Future by first raising a monument to the living memory of our Father, Patriarch and Law-giver.

Yes, Providence has ordained it. The monument over the Raja's grave in far-off Bristol points the way. Who dreamt that a new pilgrim's shrine for the dusky dwellers on the palm-clad shores of tropical seas should be raised across half-mythical oceans and continents in the white island in the storm-vexed northern seas under the cold sign of the Great Bear? Yet, hundreds of Indians have paid homage to that shrine, and offered up their vows. On this very day, three years ago, three friends, Indan pilgrims stood, knelt, on that spot, hushed, mute and pale in the shadow of that

monument. The autumn morning struggled out of the mists and smiled with a new-born innocence,—beyond stretched the dim elm groves, relieved by miles and miles of the glorious green of the English swards and downs gently rolling away in the bluish haze to the silvery seas,—chequered light and shade—glittering pools and shiny rain multi-shadowed by the thin, white clouds over-head. Life was hushed in endless repose—in stirless, rippleless, dreamless repose—only the grasses grew round the grave, with a few autumnal blooms, pensive and pale under that stone canopy. Nature's own peace without; within, the peace that passeth all understanding.

Every Indian visitor records his name in the book that is brought to him by the kindly old keeper of the cemetery, and the simple folk of the fields gaze with reverence not unmingled with curiosity at the modest monument of the Oriental Raja, at which hundreds of brown people from the land of the sun, in motley dress and head-gear, be-shawled and be-jewelled, kneel and offer up their vows and prayers.

Bristol, I say, points the way. A monument in Stapleton Grove—why not also on the quiet village green of Radhanagar in the delta of the Ganges? Why not the spot, hallowed by the first manifestation of that Avatar of Historic Humanity? Must we be content with a cenotaph—with the hollow fanfaronade of a day—with mouthing rant or mincing mimicry from the ephemeral platform or pulpit?

Nay—let us set up a Rammohan Mela, an Indian Fair, as we Orientals know how to do it—a Mela with tableaux vivants (as at Ramlila) of national History, with a Dharma-Mahamandal or Congress of religions, an Indian arts collection, an industrial Exhibition, a literary re-union. They are going to hold a re-union of Bengali men of letters in Moorshedabad. The idea is felicitous,—the place and its memories far from appropriate. The birth-place of Rammohan Roy is the heaven-appointed centre of our national fetes, federations and reunions. Emerald fields and yellowing patches, mango topes and bamboo-clumps, placid jhils and murmuring streams, old village tanks and ruined ghats and temples, will not be wanting in the delta of the Ganges. The house in which Rammohan Roy was born, the roof under which he passed his infancy, his earliest haunts and surroundings, should form a sufficient nucleus round which to grow the pilgrim city dedicated to the memory of the Father of Modern India, as Stratford-on-Avon is dedicated to Shakspere's, and Concord to Emerson's.

Shakspere lives in Stratford to this day, for Stratford lives in Shakspere. The quaint old gable-house, the romantic Hathaway cottage in Shotover, over across the green lanes and corn-fields, the poet's New Place, now turned into a Shaksperean museum, out of which you emerge into a sunny little garden, with the traditional tree of the poet's planting,—and most hallowed of all, the fine mediæval Church of the Holy Trinity with its Gothic arches

and painted windows and pointed steeple 'bosomed high in tufted trees,' and its modest tablet over the poet's tomb in the dim-lit chancel,—round these reminiscences, what a mausoleum has been built, attracting thousands of pilgrims from the entire habitable globe! From the Shakspere Hotel to the Shakspere medallion and jug, the Shakspere cup and match-box,—they eat and drink Shakspere, they smell and touch Shakspere—they light and smoke Shakspere,—and in characteristic English fashion, they buy and sell Shakspere. And we, Hindus, in our national way—could we not set up a new Tirtha, a new Pithasthana, a new Maha-mela, in the name of our patriarch and law-giver, the Manu or Prajapati of our Modern Manwantara?

Luckily, the occidental genius for hero-worship, and the British eye for facts have preserved for us some personal relics of the Raja. Many of us have had the privilege of seeing and touching the Raja's *pugree* and *upabita* to which he clung unto the last. We have casts of the Raja's skull with skull measurements and a phrenological chart. There are several of his personal effects. These are not airy nothings, but they want a local habitation, if not a name. They are human exhibits with talismanic power,—charged with human magnetism.

Calcutta may be a city of Palaces—and Flats; it is not yet a city of monuments, *pace* the monument in the Maidan. The metropolis is rich in memories, and, among these none more cosmic, more monumental, than those of Raja Ram Mohan Roy. The Victoria Memorial Hall will be a centralised imperial affair, and, rightly conceived and embodied, may be a noble exposition of the creed of Historic Eternity; but we require not only bullion in the mint, but also specie and current coin for daily transactions and familiar intercourse. Truth, Beauty, Heroism, every form of Inspiration, multiplies itself;—the sanctification of Historic Man must come home to us in our daily walks and haunts, in our marts and chowks, in our squares and parks, in our schools and theatres, as well as in our museums and national galleries. It is thus that monumental cities rise.

A central Ram Mohan Roy Library—Ram Mohan Clubs, literary, sociological, religious and philosophical—and Ram Mohan Chairs for Comparative Religion and Comparative Sociology at the University—are amongst the *desiderata* of the intellectual life of the metropolis. The Raja's residence in Lower Circular Road, the original meeting-house of the *Atmiya Sabha*, and the garden-house of Ramaprosad Roy, should be set free for the purposes of the clubs and the central Library. Busts, statues, portraits of the Raja will be multiplied with the not unlikely inception of a school of Indian artists. The *Bharata-mangala*, a Bengali epic, already commemorates him as its hero. No future Indian artist in colours or marble, but will dedicate his talent to the historic or emblematic representation of the scenes and labours of the Raja's earthly life.

This will lay the foundation of the new creed of Humanity in this land of Avatars. Let the Raja teach us the cult of Historic Eternity—the Raja who was the eldest begotten of the Illumination in India, and our first evangelist and high-priest of the gospel and sacrament of the French Revolution. Begin we to build—and the cenotaph will become a living shrine for heroic self-dedication, for votive self-consecration.

And now for a dream—a hope—a prophecy! I have stood in Santa Croce's sacred ground in Florence.*

In Santa Croce's holy precincts lie
Ashes which make it holier, dust which is
Even in itself an Immortality,
* * * Here repose
Angelo's, Alfieri's bones, and his,
The starry Galileo, with his woes.
Here Macchiavelli's earth returned to whence it rose.

But where are the bones of Dante, Florence's mightiest son, the Patriarch of Italy!

Ungrateful Florence, Dante sleeps afar.
Happier Ravenna! on thy hoary shore
Honoured sleeps the immortal exile!

So sang Byron;—so will not sing the poet of the Future. For Florence's reproach has been wiped away. Three years ago, I gazed on the cenotaph of Santa Croce, tardily raised to Dante's memory in 1830—no longer a cenotaph, but a holy mausoleum, beneath which lay the bones of the immortal pilgrim and wanderer, now more than five centuries after his death revisiting his native earth, to preside over the city on the Arno, sacred to the memory of Beatrice.

Standing by Dante's new-old grave in Santa Croce's sacred ground, what if I dreamt of the Raja's future home-coming from beyond the seas,—the return of our Prince Arthur from the isle of Avalon? Lo! our Prince dies not, but has passed, in trance; presently he will awake, and with his return the Old order shall again yield place to the New!

BRAJENDRA NATH SEAL,
Principal, Victoria College,
Cooch Behar.

* *Santa Croce*, the Church of the Holy Cross. "The tombs of Machiavelli Michael Angelo, Galileo, and Alfieri make it the Westminster Abbey of Italy."—Byron.

IS MATTER ALIVE? SOME OF THE LATEST RESEARCHES OF DR. J. C. BOSE (D. Sc.)

Ever since the birth of modern science men have been fascinated by the difference between the organic and the inorganic. The mystery of life, and pre-eminently of animal life, has attracted as many inquirers as ever did the quest of the philosopher's stone. For it seemed to imply a far greater miracle. Its myriad individuality; its eager movements: its peculiar forms; its growth of large from small, and back to embryo again; its persistence of species combined with its rapid evanescence of individuals; above all, its possession of consciousness, rising into thought and knowledge—these and other characteristics make up a phenomenon so complex and stupendous in its seeming unlikeness to all else in Nature, that in the first enthusiasm of science, living things were inevitably assigned a place by themselves and a terminology of their own.

But alluring as was the task of dissecting out the mighty puzzle and putting it once more together, the scientific intellect had time after time to turn back from the attempt which it had already felt was foredoomed to failure. There were plants that moved visibly and animals that never moved at all; and the very existence of the science of organic chemistry is an abiding protest in chemical regions against the arbitrary distinction between living and non-living products.

RESPONSE OF MATTER.

Yet there was one criterion of life which seemed to stand persistently alone. This was the characteristic of irritability, or power of responding to stimulus. You pinch your arm, there is an immediate response in the feeling of pain. In response to the stimulus something is sent along the nerve to the brain, which causes the sensation. In fact, we have here something like an electric circuit, the effect of a shock in any part of the body being sent along the conducting nerve to the detecting brain. If an isolated piece of muscle or nerve be connected with a detector of electric current—a galvanometer—then each time a muscle or nerve is stimulated by a pinch or shock of any kind, the thrill of response is betrayed by an electric pulsation. These electric pulses give a faithful indication of the "Livingness" of the tissue. When the tissue is killed the electric pulse ceases to beat. We can thus read the history of the life-process autographically recorded before our eyes; we can watch the diminishing pulsation with the waning of life and the final arrest at the moment of death. The up and down curve of throbbing life is replaced by a line of immobility at the moment when it passes into non-life.

THEN METAL IS A LIVING THING.

Thus, the pulse of electric response is regarded as the criterion between the living and non-living. When it is not found we are in presence of death or else that which has never lived. A living thing is responsive, a dead thing is not. The living response with the attendant phenomena of sensation was supposed to be due to the working of a "mysterious" vital force which found its dwelling place in the living.

Alas, however, for human boastfulness! since as the result of the latest discovery it appears that this harmless little arrogance of man eager to believe that his corporal brain and frame obey laws different from, and greatly superior to, those which govern the mineral world—the seemingly innocent morsel of ignorant vanity is about to be refused to us. For as regards response, the gulf that yawned between vital and non-vital has been bridged, and the bounds of sympathy are pushed into a new domain by proofs that the responsive processes seen in life have been foreshadowed in non-life and that even metals respond precisely in the same way as human beings!

It is too early as yet to estimate the full significance of such in discovery. The unity proclaimed is far-reaching and marks an epoch in scientfic thought.

THE DISCOVERER OF THE LIFE OF METALS.

Dr. Jagadis Chunder Bose, the Professor of Science at the Presidency College, Calcutta, is the discoverer of this life of metals.

After taking his degree in Calcutta, he won entrance as a scholar at Christ's College, Cambridge, in the year 1881. His course there ended with the responsive phenomena in the living and non-living. He subsequently undertook an extensive inquiry on the responsive in the transitional world of plants, and an account of this work has been published in the Journal of the Linnaean Society.

After taking simultaneously the Natural Science Tripos and the London B. Sc. degree, he returned to India to be appointed a Professor of Physics in the Presidency College, Calcutta.

Ten years later his work won the recognition of the Royal Society, which published his paper on the "Determination of the Indices of Refraction of various substances for the Electric Ray." In the year 1886-7 Professor Bose spent nine months in this country on his

first scientific deputation from the Government of India. During this period he received the degree of D. Sc. of the University of London in recognition of the value of his research. The scientific world both in England and on the Continent was greatly interested in his apparatus for the detection and measurement of the properties of invisible light.

Since his return to India in 1897, Professor Bose's investigating energy must have been redoubled to judge from its result. It was, therefore, inevitable that he should be sent once more to Europe by the Government of India as a delegate to the International Scientific Congress held in Paris two years ago. This was specially due to the great interest taken in the cause of scientific progress by Sir John Woodburn, the Lieutenant-Governor of Bengal. The first account of Professor Bose's discovery,—"The Responsive Power of Inorganic Substances"—was thus announced before the Paris Congress, a full account of which appeared in the Transactions of the Congress. Since reaching England he has pursued the many-sided outcome of his enquiry, and his communications have been published in the Proceedings of the Royal Society. In May last year he delivered on Friday evening a discourse at the Royal Institution dealing from which he was unexpectedly led to his present line of investigation. It was the English physicist, Maxwell, who from theoretical considerations first came to the conclusion that light was a kind of electric vibration to all but a single octave of which the human eye was blind. (Similarly with the ear, there are whole ranges of sound inaudible to us; it is probable indeed that certain notes reach the insects which we shall never hear!) Hertz, in Germany, was able to produce electric waves by rapid electric vibration and narrowly anticipated in this Sir Oliver Lodge, the eminent English physicist. It is by means of this invisible light sweeping through space with incredible swiftness in its mighty billows that wireless messages are sent. Thus, with the discovery of electric vibration new realms of radiance possessing wonderful and unknown properties were opened out.

Naturally the great difficulty in investigating these rays arose from their invisibility. Some apparatus was required which would serve to detect them. Branly, in France, observed that the shock of electric waves produced changes in metallic particles by which their power of conducting the electric current became increased. What these changes might be remained a mystery, but it was evident that by this means detectors of electric waves could be made. At first,

however, these detectors or receivers proved very capricious in their action, but Professor Bose succeeded in producing a type of receiver which was quite consistent in its working. He was also able to construct a very perfect electric wave apparatus with which the various properties of invisible light could be studied and measured. It was the wonderful performance of this instrument that surprised and delighted the leading savants who were amongst his audience at the Royal Institution five years ago. He took various so-called opaque objects—a book, human hair, block of wood, and so on—and producing electric waves with the help of his apparatus was able not only to show that rays passed through these masses, but also to measure the angle at which the unseen light became bent in its transmission. With unfailing certainty also the existence of hidden strains within opaque masses was detected by the same means.

TIRED FEELINGS IN METALS.

It was said that the precise nature of the changes made by invisible light on the mass of metallic particles which constitute the receiver remained a mystery. In practical application this fact had a grave drawback. After receiving a signal the detector would become fatigued from the strain and a tap had to be given to revive it. The whole thing went by rule of thumb. If the receiver was to be made more sensitive so that messages could be recorded from a greater distance and with greater speed, it must be self-recovering so as to do away with the contrivance of tapping. To bring about any improvement, therefore, it was clearly necessary that the theory of the receiver should be properly understood. In the course of a lengthy research, in which a very patient and wearisome investigation had to be made of all the elementary substances, Professor Bose lighted on several which exhibit self-recovery, and of which therefore, receivers could be made which would require no further tapping. He came to the conclusion, indeed, that the whole question was one of overstrain. This is seen on some materials like lead wire which become easily overstrained, while others such as a steel spring, exhibit, greater elasticity, and, therefore, more easily recover from the effect of strain.

SENSITIVE ARTIFICIAL ORGANS.

It was while working on his theory of the effect of external stimulus on matter that he was led on to a new line of investigation, the outcome of which was the construction of artificial organs which simulated the action of our sense organs. These artificial instruments transmitted the impression received from without to be recorded by

suitable electric recorders just in the same way as our sense organs, the eye for example, send in messages received from the outside to be recorded by the brain. It is hardly to his mind a question of similarity but rather of identity.

For what is the distinctive characteristic of life? Is it not the power to respond to external stimulus? We pinch or pass an electric shock through the arm, and a visible twitch shows that the muscle is still living. A dead body does not respond when pinched or shocked, the sudden twitch is thus an indication of life. Physiologists make the twitching muscle record its autograph on a travelling strip of paper, and the autographic record tells the history of the muscle, the story of its stress and strain. When it is fresh, the writing is bold and strong; as fatigue proceeds it becomes indistinct, and when the muscle dies the record comes to a stop.

These are, however, but gross indications of the vital conditions. There are other and subtler processes which cannot be so easily detected. Nervous impulses, for instance, are transmitted without any visible changes in the nerve. Yet when a flash of light falls on the eye, something is sent along the optic nerve to the brain there to be interpreted (or recorded) as visual sensation This visual impulse produced by the stimulus of light is an electric impulse. Whenever a shock or disturbance impinges upon a bundle of receivers in the human body an electric thrill is produced and courses along the nerves which are but telegraphic wires to the central station, the brain.

THE NERVOUS SYSTEM OF METALS.

These electric pulsations are regarded as the signs of life. External stress like light and sound gives rise to them, and the electric currents thus set up excite the brain and cause sensation. But when any organism dies accidentally or otherwise, the living mobility of its particles ceases, the stress-pulses can no longer be sent along the nerves and there is an end of response.

The electric twitch in answer to external stress is thus the perfect and universal sign of life and the autographic records of these electric twitches show us the waxing and waning of life. Their gradual decline shows the effect of fatigue, their exaltation, the climax of artificial stimulation, rapid decline, the anæsthetic action of chloroform, total abolition the end of life. But is this electric response, the sign of life entirely confined to what we call living things? It is quite wanting in what we know as the inorganic. By means of Dr. Bose's instrument this question can be answered definitely, for when the

metals were stimulated by a pinch they also made their autographic records by electric twitches, and thus being responsive showed that they could in no sense be called "dead." Nay more, it was found that given the records for living muscle, nerves and metals, it was impossible to distinguish one record from the other. For the metals also when continuously excited, showed gradual fatigue; as with ourselves, so with them, a period of response revived their power of response, even a tepid bath was found helpful in renewing vigour; freezing brought on cold torpidity, and too great a rise of temperature brought heat riger.

METALS CAPABLE OF DEATH.

It is said, however, that the ultimate sign of life is inevitable death. An animal is living as long as it is capable of dying. It is true that death can be hastened by poison. Then can the metals be poisoned? In answer to this was shown the most astonishing part of Professor Bose's experiments. A piece of metal which was exhibiting electric twitches was poisoned; it seemed to pass through an electric spasm, and at once the sign of its activity grew feebler till it became rigid. A dose of some antidote was next applied, the substance began slowly to revive and after a while gave its normal response once more!

But if the inorganic be indeed touched with this glimmer of living response, then it ought to be possible to construe artificial organs of perception. Of all the organs we possess, none is so wonderful as the eye. Professor Bose, therefore, turned his attention to the construction of an artificial retina which would respond to light. But this particular organ has one advantage over the human eye, inasmuch as its sweep of vision is practically unlimited, detecting waves of to us invisible light, whereas we are confined to a single narrow octave.

HIS ARTIFICIAL EYE.

It was while he was striving to interpret the hieroglyphic records of his artificial eye that Professor Bose came upon certain hitherto unnoticed and extraordinary phenomena of human vision. For, if the action of the artificial corresponded with that of the real eye, then the peculiarities of both must be present in each. It may be said that according to the stress and strain theory the sensitive elements in the retina respond to light simply because they are strained or disturbed by it, as a wire is strained by twist. Just as on the removal of twist the wire continues to vibrate, so do the strained particles in the sensitive retina go on oscillating, and thus send pulsating currents to the brain. These pulsating currents again cause a pulsating visual

sensation. For if one look at a bright object, then shut the eye, the bright object looked at will appear and disappear several times in succession. These "sight echoes" are very persistent and form the incipient stage of the process we call memory.

WHY WE HAVE TWO EYES.

Another fact discovered from the clues given by the artificial retina is that when we look at any object the two eyes do not at any given instant see equally well, but each takes up the work of seeing and resting alternately. One falls asleep, as it were, while the other is waking to its maximum consciousness and then *vice versa.*

Thus, Professor Bose was led to the paradoxical statement that under certain circumstances we can see much better with the eyes closed than with them open. To prove this it is only necessary to look at the light through a modified stereoscopic apparatus in which, instead of photographs, we have placed two different inscriptions.

On looking through this one finds two images superposed making a blurr. But on shutting the eyes the tangled writing is unravelled and the constituent parts are read clearly to the brain.

Thus sight lends itself to interpretation by the process of strain and self-recovery amongst sensitive atoms; and what is true of the complex organism of the eye is found common to all nerve, all muscle, and to that matter which we long thought of as lifeless and insensate.

It will be seen by the least scientific reader that these experiments teem with significance. They completely destroy all barrier of a hard and fast kind between the responsiveness of the organic and inorganic, showing that the one is merely some greater complexity of the other; they impress us profoundly with the mystery of the sensitiveness of all things.

CONCLUDING REMARK.

Thus we see that the so-called vital response of living matter has met with the same fate as other differentiæ of the organic and the inorganic—that once more there is no hard-and-fast line between the living which respond and the non-living which do not, but that in both alike we see the spectacle of matter as a whole possessing irritability and passing out of the state of responsiveness into that of irresponsiveness having its response in both alike effected by external circumstances and agencies often identical: responding in different wave in both alike, according as the stimulus is great or little, the critical degree being often the same. In metals and plants as in animal tissues, we have been shown the phenomena of weariness and

depression, together with the possibilities of recovery or exaltation, of irresponsiveness which is death.

Who can regret this? Is it not the inevitable destiny of all conceptions which imply that a given phenomenon is unique, mysterious and beyond analysis to check inquiry and thwart the advance of scientific thought? Science can grow only where the mind of the student is prepared to recognise an underlying unity amongst apparently diverse phenomena.

"They who behold but one in all the changing manifoldness of this universe, unto *them* belongs Eternal Truth, unto none else—unto none else."—*M. N. in Review of Reviews* (*October*, 1902.)

PROFESSOR J. C. BOSE INTERVIEWED IN 1896.

[The announcement of the latest discoveries of Dr. J. C. Bose (D. Sc.) followed closely by the publication in the course of the last month by Messrs. Longmans Green & Co., of a scientific work from the learned Professor's pen embodying these discoveries under the title of "The Response of Matter"—the main subject-matter of which has been sufficiently explained for popular purposes in another article—give the following account of an interview with the distinguished scientist, some six years back, when he had just made his mark in England and on the Continent as a discoverer—an added value. The interviewer is no other than Professor Satthianidhan of Madras, and the interview took place in 1896.—*Editor, Dawn.*]

I should like to say a few words about the remarkable researches of the Presidency College, Calcutta. I had the pleasure of knowing him at Cambridge as an under-graduate and now that I meet him in London after the absence of fourteen years, I find him to be the same simple, unassuming, humble student I knew him at Cambridge, though he is on the threshold of a European fame such as has never fallen to the lot of an Indian. The London University has just conferred on him the highest honor in its gift, the degree of D. Sc. for his scientific researches. Prof. J. J. Thomson, (Cavendish Professor of Natural Philosophy at Cambridge and President of the Physical Section of the British Association) and Prof. Poynting state in their report to the University of London that Prof. Bose has by his researches 'materially increased our knowledge of the properties of Electric Waves and made important additions to the methods of observing them.' Prof. Bose has been working patiently for some years at the Physical laboratory of the Presidency College, Calcutta, with

imperfect appliances at experiments on electro-magnetic, radiation, but it was only in 1895 that he gave publicity to his researches by reading a paper "On Polorisation of the electric ray at a meeting of the Royal Asiatic Society of Bengal" Two of his papers later on appeared in *The Electrician*, and another, 'On the determination of the *indices* of refraction of various substances for the electric ray' was communicated to the Royal Society by Lord Releigh on the 20th October, 1895, and read on the 12th December. Yet another paper 'On the determination of the wave-length of Electric Radiation by Diffraction Grating' has been accepted by the Royal Society. I had the privilege of being present when Prof. Bose was explaining the construction of his remarkable Electric instruments to some of the members on the staff of Elliot Brothers, the great London scientific instrument-makers, and I could see that they were deeply impressed with the ingenuity displayed by the inventor and the marvellous results produced with the instrument.

Dr. Bose's Researches have won the highest encomiums from leading scientists in Europe. I shall only quote here what Lord Kelvin, as he is undoubtedly the greatest authority in experimental science, says: "I have found time to look all through the pamphlet although not to learn all its contents, but I have seen enough to fill me literally with wonder and admiration." It is a matter for thankfulness that both the Government of I... and the Secretary of State are doing their utmost to encourage Prof. Bose in his researches. I have had considerable difficulty in inducing him to answer my answers, as he is averse to say anything about himself.

'Will you kindly let me know for how many years you have been carrying the experimental researches on Electro-Magnetic Radiation? And whether you have had adequate facilities in India to carry out these investigations?'

'I have been working at this particular subject for nearly two years. The great difficulty encountered was from want of mechanical appliances and materials for the construction of necessary apparatus. It was necessary to devise new instruments, for these had to be made in India with the help of an ordinary mechanic. These many difficulties were ultimately overcome by perseverance. There was necessarily a great waste of time and many important investigations had to be postponed.'

'What is your purpose in visiting Europe and in what directions do you mean to carry on your investigations?'

'My principal object is to visit the most important Laboratories in Europe and plan an efficient one for the Presidency College. With a good Laboratory it would be possible to carry to a successful conclusion a large number of investigations within a reasonable time. A speculation, however interesting it may be, is of not much use until verified by specially devised experiments. There still remains a great deal of important work to be done in connexion with the many unknown properties of the invisible electric waves. The difficulty of investigation lies in the fact that we possess no organs to perceive them; an artificial electric eye has to be devised for seeing the invisible.'

'What will be the practical outcome of your investigations? Do you think the suggestion of the *Electrician* that your researches are likely to lead to the use of electric signalling apparatus in the place of ordinary light-houses, will be brought to a practical issue at an early date?'

'Many new properties of electric waves which are not hitherto suspected will, at no distant time, be found out. When we know them it would be easy to turn them to many practical uses. But there is a great scientific interest attached to these studies apart from all practical applications. The possibility of signalling by other vibrations has been proved.'

'What do you think are the prospects of science-teaching in India? We hear it said generally that the Indian student's mind is more theoretical and speculative, and hence it is impossible to expect much advance to be made by him in Physical Science.'

'The Indian Universities, as a rule, are behind the European Universities as regards the drawing up of a satisfactory Science course. The examinations as at present conducted encourage cramming. Many of the Colleges have no Laboratories and students are obliged merely to exercise their memory in getting up scientific subjects. There are many who are fond of speculative studies, but there are others who exhibit aptitude for scientific studies also.'

'I have heard it said that the Indian student is entirely destitute of originality. Do you agree in this view? Do your students take a real genuine interest in science, have any of them made any attempts at original work?'

'Originality is rare anywhere. But I have come across very intelligent students, some of whom would have under favourable conditions done excellent scientific work. University education merely

supplies preliminary training. Serious work can only be attempted afterwards when a student devotes his undivided attention to a particular subject. One of my former pupils who has been able to work in the Laboratory has done some excellent work. My young assistant, not a graduate, has within a short time developed great originality and has rendered me very efficient help in the construction of my apparatus. Lastly, a bearer whom we employed as a menial servant on a pay of Rs. 6 only now arranges for me the most difficult experiments, manages the Dynamo-Machine and is a good photographer.'

'What steps do you think should be taken to encourage original research in India.'

'The first essential is to have good Laboratories. There should also be post-graduate scholarships and fellowships for students who show special aptitude for scientific work. Students as a rule are very poor. The privation some of them go through to obtain their education is heroic.'

'What is your opinion about sending Indian students to Europe for study? It is said that it unsettles their mind. Is this true?'

'I think it would be an advantage to send students who have proved themselves industrious to some of the English Universities. It is not advisable to send more boys to England: but for students who have shewn a special aptitude for work, nothing is so desirable as training in a University, such as Oxford or Cambridge where they will be under healthy influence and come into contact with the best minds.'"

INDIAN ARTS AND INDUSTRIES: DECLINE IN INDIAN TASTE THROUGH CONTACT WITH EUROPEAN ART.—I.

[*By Georgiana Kingscote.*]

CHARACTER OF MODERN EUROPEAN ART.

Ruskin tells us in one of his books on painting that the artist's object should be to maintain the 'innocence of the eye.' The great and insurmountable difficulty in art is the maintaining of that innocency. The eye is dazzled and disturbed by incongruous colours, by lights and shadows, by the introduction of bad example in the shape of bad work, by the attempts of eccentric artists to marry colours that Heaven never intended to meet, by the constant resting of the eye on shapes and forms and colours which take the fancy and attract the eye, but which are not built on the lines of true art, more

especially in the attempt to revive ancient art in modern garb. If modern European art were a boon, she would be hailed with delight; but she smells of what is vulgar and underbred and coarse, unlettered and superficial.

LOSS TO INDIAN ART.

The European collector has bought up what is old, has robbed India of its beauties, and has given nothing but coarse design and vulgar workmanship instead. Remember also that fine specimens of English work never entered Indian realms. It is the commonplace that goes to India and thus India is rapidly replacing original and beautiful art by the commonest imitation of what is often not even the best of English work, or even always English, but what England has already copied from some other European nation. The revolution began about a hundred and fifty years ago, when mechanical inventions were introduced into India. In the Exhibition of 1851 the result of this was already apparent; and grounds have been steadily lost ever since; indeed the wonder is that any of the old shapes remain. Between the years 1855 and 1858 fresh harm was done by two or three European artists taking out some bad specimens of English work to India, which were promptly copied by Indian workmen.

India and especially Southern India is now going through an Anglo-phase. It affects plainness of design in great part because with less effort the same price can be obtained. Plainness is all very well for use, but the æsthetic and artistic side cannot be developed by perpetually looking on plain, uniform things. Plain paper is useful to write upon, but it is the writing on it that makes the impression, and so it is that the *lota* (vase or cup), with the parrot on it, or the *lota* with the *hamsa* (or swan) on it first attracts the child's attention, then charms it, and then excites its wish to imitate it. **We Europeans set an example of simplicity of attire, of plainness in objects of use—glass, crockery, plate, &c.,—but we are the first to patronise art and to inculcate it in our children and to beautify our houses.** Even in India some of the houses are museums of lovely things; but as far as finding original art in India, **there are only the temples left where we can redip in the beauties of extinct Indian art.** Here each door is coated with beautifully carved brass, lamps supported on the heads of damsels, and held up by the mouths of gryphons, meet the eye; brass images staring life-like at the worshippers, holding swinging lamps between their well-formed fingers; a thousand beauti-

ful temple utensils all exquisitely carved testify to the religious fervour and the practised talent of the worshipper. It is the same spirit that inspired the Christian painters of ancient Italy, and as that fervour dies, so art dies.

PROGRAMME OF WORK.

Art in India lies a crumbled heap of forgotten and neglected beauties. India is so large that the different industries are terribly scattered and even in some cases lost to view; the haunts of the finest arts are tiny villages, whose names are hardly to be found in maps. All these would have to be ferretted out and visited ; a herding together of art-centres would be necessary, an assembling of respective representatives, overseers and managers would have to be found; industrial schools of art and museums established with educated responsible heads; local exhibitions should take place which again would forward the *primeurs* of their produce to larger exhibitions finally to end in gigantic and glorious yearly exhibitions of purely Indian work. Indian exhibitions have been held in England with great success; but the presence there of things which were merely imitations of modern English work proves that the object of these exhibitions is merely to encourage Indian handi-work and not Indian art.

APPEAL TO EDUCATED INDIA.

India would respond sooner than any other country to an appeal for the revival of ancient Indian art. And what a gain it would be if the native of India would turn his capabilities and the education he is receiving but which he has so little opportunity of applying, to some great account, by directing the course of his energies and his imagination towards the internal improvement of industry and art which is practically the high road to an improvement in trade and the enriching of the country.

GEORGIANA KINGSCOTE.

THE SCHEME OF SALVATION UNDER THE NYAYA SYSTEM OF PHILOSOPHY.—II.

[*Continued from page 32, Vol. VI.*]

On the other hand, a man may independently of the impulse due to past *karma*, do bad acts in this life, and these or their residue shall have to produce their effects; and so man must go on from birth to birth, the *victim*, so to say, of पुण्य and पाप, of good or bad *karma*; and shall be perpetually tossed about between smiles and tears, between joys and woes, happiness and misery in an endless manner. In this

manner it appears that the duty of man who wishes to free himself from this endless chain of *karma* is to submit to the following rules of conduct.

(*a*). Patiently, cheerfully to work out one's past *karma*—*i.e.*, the unexhausted portion of them, because their end comes when the pain or the happiness that they must bring is suffered or enjoyed.

(*b*). But while so doing, not to indulge in one's present life any *fresh* act of will in the direction of good acts or bad acts (पाप or पुण्य). For these shall then have to be paid for again either in the present body or in another body which would not have been necessary but for such fresh acts in this life.

(*c*). It is very difficult to distinguish between a *fresh* act of will in the present life and the acts due to the प्रवृत्ति or the impulse brought over from a past life with its unexhausted *karma*. The only advice under the circumstances is for the spiritual aspirant (साधक) to exercise his power of discrimination, of introspection, of self-examination, of looking into his inner life, his inner motives of conduct, so that he may learn to distinguish in time between the irresistible impulses and his resistible or avoidable desires.

(*d*). Hence arises also the necessity of placing himself under the guidance of a spiritual teacher or उपदेशक, under whom the aspirant is to practise self-restraint (संयम) and also work out not all but only the natural desires, *i.e.*, the प्रवृत्ति's created by the *karma* of past life.

(*e*). Besides संयम, *i.e.*, the non-indulgence in any fresh evil acts of will, the spiritual aspirant must also develop the spirit of *karma* without selfish motive (निष्काम कर्म), *i.e.*, motives of personal gain, of personal interests. This निष्काम discipline of work is only possible by our looking upon God as the source and supporter of all things, of our subordinating our wills to His Will. So that the fruits of whatever he may do as the effect of past unexhausted *karma* good or bad, the *sadhak* must never in mind or heart seek to appropriate to himself, but must learn to offer to God to be by Him disposed of in any manner He pleases. This *niskam* work will teach the aspirant not only to forego all *limited* desires of his own—producing either pain (if they are evil) or enjoyment (if they are good); but to surrender his will to the Supreme Will. This surrender means the loss of his limited selfhood and the attainment of a boundlessly expanded and blissful life, in which there is no war of antagonisms, no triumph of victory, or the misery

of defeat, but only the peace and joy that passeth all understanding and which comes the moment we leave limited our selfish selves. When this high state is reached, the aspirant is unbound (मुक्त) *i.e.*, is no longer fettered by the chain of selfish, limited joys and woes. In this state, the Supreme Ruler may commission the Freed Man (जीवन्मुक्त) to carry out His Will—His आदेश, and it is then that the Jivamukta again does *work*, but under God and in conscious obedience to Him. It is the servant's carrying out of the Master's orders in a spirit of complete loyalty. This doing the Master's *adesh*, or behests cannot by the very nature of things create a selfish प्रवृत्ति and so the *Jivamukta* lives in God—for evermore —in the enjoyment of eternal bliss. For the Nyaya draws a clear line between Matter and Spirit and distinguishes individual or living souls (*Jivatman*) which are numerous, infinite, and eternal from the Supreme Soul (*Paramatman*) which is One only, the seat of eternal knowledge and the Maker and Ruler of all things (*Iswara*). It is by His will and agency that the conscious living souls (soul-atoms, so to say) enter into union with the material atoms of mind, &c., and thus partake of the pleasures and sufferings of mundane existence.

EDITOR.

RATIONALISM *versus* REVERENCE: OR THE ABUSE OF THE REASONING FACULTY IN MATTERS RELIGIOUS.—II.

(*Concluded from page 96, Vol. VI.*)

I would now proceed to sum up briefly the fallacies to which one is liable who seeks to test the accuracy of a religious question by means of the reasoning faculty alone,—I say a *religious question* in particular, because it of all problems is the one that transcends our ordinary experiences.

In saying that we should not believe in a thing unless it appeals to our reason we tacitly suppose the following:—(1) That our reasoning faculty is in the soundest state possible; (2) that we have taken into account *all* the circumstances that can be urged for or against the proposition; (3) that the reasoning faculty is the only faculty by which a truth can be perceived or felt.

Now if we seriously think upon these three conditions, we shall find that one or other or sometimes all of them are defective and consequently our conclusions must be erroneous. I shall take up each of these suppositions and show that it is not taken account of by the reasoner.

(1) It is a very common fault with the reasoner to suppose that *just* at the time of reasoning his reasoning faculty is in the best order possible; unfortunately it is seldom so. Just as our stomach cannot digest food unless it is in a healthy state, so our mind or reasoning faculty cannot work properly if it is in a morbid or abnormal condition. Now the things which perturb our reason are usually our *passions* and *prejudices*. Every one knows that a man cannot argue properly if he is in anger. But this is an extreme case. Ordinarily we are *unconsciously* more or less influenced by our passions and appetites, or motives of self-interest. We should take note of the word *unconsciously*, because, on it depends the whole thing. While we are under the influence of a passion, we scarcely know that we are so. Not to speak of sordid motives, even a desire for fame or a feeling of patriotism is sufficient to make a writer or speaker deviate from the Truth, without being able to know himself that he is doing so.

Similarly our prejudices interfere with a strictly logical process of arguing. We inwardly take for granted that what we say is true, and then we invent at random facts to support our inward convictions. Thus we see that most of our arguments however logical they may appear involve the fallacy of *petiatio principii*. Lastly, a good mental condition depends upon physical health. It is for this reason that Carlyle emphasizes the necessity for keeping good health in his advice to students, in the essay on the Choice of books. His words may be aptly quoted here:—"I find that you could not get a better definition of what "holy" really is than healthy. Completely healthy; *mens sana incorpore sano*. A man all lucid, and in equilibrium. His intellect a clear mirror geometrically plane, brilliantly sensitive to all objects and impressions made on it, and imaging all things in their correct proportions; not twisted up into conven or concave and distorting everything, so that he cannot see the truth of the matter without endless groping or manipulation: healthy, clear and free, and discerning truly all round him." Here a very valuable definition of what our intellect should be like, if we wish to reason with it in matters religious. Carlyle however saw only one side of the thing. He did not recognise, at least in the present case, that passions and prejudices obscure the intellect so much as physical disorders. Emerson also recognised this fact when he said: "If we live truly we shall see truly." Dyspepsia, headache. &c., are as much enemies of a sound mind as passions and prejudices, and the one class of diseases stand as much in need of being rooted out as the other.

(2.) Secondly, we seldom if ever take all the circumstances that can be urged for or against a proposition into account. We argue from a few facts, we base all the reasoning process upon them and we as matter of course come to fallacious conclusions. The thing is that in our everyday life we are not provided with all the facts of a case, but we lay hold of a few that may suggest themselves to us just at the time of arguing. It is also a fact that the events that come to our notice in everyday life are only a fraction of the unlimited phenomena that guide this mysterious universe. We are loath to leave the beaten track. We may profess to be liberal, but we are rigidly clinging to the routine-life all the same. In fact, we are conservative or liberal only in our professions; in our actual life all of us are on the same level, *viz.*, basing our arguments on a handful of facts that the slow motion of routine-life may present to our view. We are generally guided by the trend of *public opinion*, not seeing that the value of public opinion depends upon the number of facts upon which it is based. Again, the value of the facts or hypotheses does not depend upon their number only, but also upon their nature. A number of facts may be so similar that one of them is as good as the whole lot. On the other hand, the discovery of one *new* instance may throw quite a new light on the subject. But we are often so much influenced by our prejudices that we reject any *new* case that would interfere with our syllogism on such strange grounds as that it is accidental or queer. In order to be able to include new cases we must constantly be vigilant and be free from our passions and prejudices. *New* cases are rare because they are new. In order to get at them we must leave our wonted groove and explore *new* regions.

(3.) Thirdly, in attempting to solve religious problems by reasoning and asking others to do the same, we assume that the *mind* is wholly concerned in carrying convictions to our soul, in other words, that the mind is identical with the soul. This tacit assumption of a part and an unessential part to be the whole proves a great stumbling block to the discovery of truth. It at once excludes all perceptions and feelings which we realize instinctively or inwardly. In assserting the supremacy of purely intellectual perceptions, it ignores all such experiences as inspiration, vision, trance, ecstasy, dream, poetry, clairvoyance, mesmerism, &c.

The mind is certainly a very important faculty of the human being and plays an important part in explaining the complex and mysterious phenomena of this mysterious universe, but to be guided

by it only is the humour of the scholar. In Srimat Bhagvat Gita it is said:—

इन्द्रियाणि पराण्याहु रिन्द्रियेभ्यः परं मनः ।
मनसस्तु परा बुद्धि बुद्धेः परतस्तु सः ॥

The senses are said to be superior to the body, the mind superior to the senses, the intelligence ("higher understanding") superior to the mind, and the soul superior to the intelligence. Thus, according to Hindu philosophy what is called "intelligence" which takes cognizance of all phenomena whether consistent with the suggestion of the mind or not has been declared to be of a higher order than the mind.

Tennyson who may be said to be the exponent of the wisdom of the West of the last century says:—

"I think we are not wholly brain, magnetic mockeries."

Thus, it is evident that there are many things in religion which only our "higher understanding" will accept but which our "conscious intellect" will reject, and it would be a safe rule for a truth-seeker, whenever he thinks that he has arrived at a truth or whenever any fact is presented to him for his inspection, not to remain satisfied with merely following it with mind-reason but also to sift the question by other and higher tests of understanding feeling, &c. By this means he would find that many facts disguise themselves in the specious garb of Truth which he could easily see through; and thus he would be able to ride higher and higher, leaving behind him the rubbish of former false appearances till the goal is reached.

AMULYA CHANDRA AIKAT, M. A.

SVARAJYA-SIDDHIH.—XXVIII.

[*Continued from page 87, Vol. VI.*]

I. Context.—The Intelligence of Brahman is now being established.

II. Paraphrase.—आत्मत्वात् (श्रुतिषु ब्रह्मण्यात्मत्वोक्तेः) ईक्षितृत्वात् (ईक्षितृत्वोक्तेः तदैक्षतेत्यादौ) अखिलवशितया (सर्वस्य स्वाधीनीकरणशीलत्वात्), शास्त्रयोनित्ववादात्, कामाभिध्योपदेशात् (कश्चित् सृष्टव्यरूप-कामविषयकजननसंकल्परूपध्यानोपदेशात्), शशितपनमुख द्योतिभास्य-तोक्तेः (चन्द्रसूर्यप्रधानकानामग्न्यादीनां प्रकाशनस्वभावकरूपत्वकथनात्), साक्षात् एव अपरोक्षात् (अन्यानपेक्षप्रत्यक्षरूपत्वात्) असुकृतसुकृताध्यक्षसाक्षित्व-वादात् (पापपुण्ययोः प्रेरकत्वस्य साक्षाद्द्रष्टृत्वस्य चोक्तेः), सर्वज्ञ-शास्त्रिसंवादात्

च (अध्यात्मसर्वज्ञत्वादिशब्दात् च हेतोः) स्फुटैर्वचनशतैरपि (हेतुभिः) सत् (सद्रूपत्वेन निश्चितं ब्रह्म) चित् स्वभावम् (चैतन्यैकस्वरूपम्) ॥ ३० ॥

III. English Translation:—The Existent (Brahman) is Intelligence because of the following reasons:—(1) Brahman has been spoken of as the Self (in the *S*ruti); (2) It is the thinker; (3) It is the ruler of all; (4) It is the source of all *S*astras; (5) Its contemplation about a desire (for creation) has been taught (in the *S*ruti); (6) It is said (in the *S*ruti) to be the illuminator of all luminous things of which the chief are the Sun and the Moon; (7) It is directly cognisable; (8) It is the impelling cause and witness of virtue and vice; (9) It is mentioned (in the *S*ruti) by such words as omniscient, knower &c.; (10) and also there are hundreds of very clear statements (in the *S*ruti).

IV. Explanatory Notes:—

(1). The *S*ruti repeatedly speaks of the Brahman as the Self; and the idea of Self is always accompanied by the idea of consciousness or intelligence. Because, when one says, 'I perceive the pot,' he predicates the perception about his *Self*; now, the perception is not possible by a thing, inert and gross, but by intelligence; therefore, the Self and hence the Brahman also is Intelligence.

(2). We have in the Chhandogya (VI. 2-3) तदैक्षत बहु स्यां प्रजायेय "That (Brahman) saw (*i.e.,* contemplated), "I will become many, I will grow forth." It follows from this that Brahman, the cause of this universe, is intelligent, because, it contemplates: and the process of contemplation is not possible by a non-intelligent entity. Hence, Brahman is intelligence.

(5). The passage in the Sruti referred to here occurs in the Taittiriyakopanishad (II. valli, 6 Anuv*a*ka), 'सोऽकामयत बहु स्यां प्रजायेय स तपोऽतप्यत' ।—

"He wished, may I be many, may I grow forth. He brooded over himself (like a man performing penance)". This act of brooding over or meditation is only possible by an intelligent entity.

(6). Brahman is self-manifesting; It does not depend upon anything else for showing itself forth. Hence It is Intelligencee.

(8). We have in the Kaushitaki-Br*a*hma*n*a Upanishad (III, 8), 'एष ह्येव साधु कर्म कारयति तं, यमेभ्यो लोकेभ्यो उन्निनीषते; एष ह्येवासाधु कर्म कारयति तं यमेभ्यो लोकेभ्यो अधोऽनिनीषते'—'Verily this makes him, whom he wishes to lead up from these worlds, do a good deed; verily this makes him, whom he wishes to lead down from these worlds, do a bad deed.' Also, in the *S*vetasvataropanishad (VI. II).

'एको देवः सर्वभूतेषु गूढः सर्वव्यापी सर्वभूतान्तरात्मा ।
कर्माध्यक्षः सर्वभूताधिवासः साक्षी चेता केवलो निर्गुणश्च ॥

'He is the one God, hidden in all beings, all-pervading, the self-within all beings, watching over all works, dwelling in all beings, the witness, the perceiver, the only one, free from qualities.'*

We see from these texts that Brahman is spoken of as the originator and the ruler of all works, good or bad; therefore It must be intelligent.

(9.) 'ज्ञः कालकालो गुणी सर्वविद्यः'—"Who is the knower, the destroyer of time, who assumes attributes and who knows everything. Svetasvataropanishad (VI. 2). 'यः सर्वज्ञः सर्ववित्' 'Who knows all (in their totality, as a whole), who knows everything (individually).' —Mundakopanishad (I. 1-9;" These texts from the Sruti state that Brahman is the knower of everything; hence It is intelligent.

(10). That Brahman is Intelligence is also directly supported by innumerable passages in the Sruti, such as, 'सत्यं ज्ञानमनन्तं ब्रह्म'

'Truth, cognition, infinite is the Brahman' (Tait, Up. II· 61) 'चिदेकरसो ह्ययमात्मा' 'This self is solely intelligence,' (Nrisimhottaratapani I), 'विज्ञानमानन्दं ब्रह्म' 'Brahman is knowledge and bliss' (Brihat Ar. III.-9-28).

सौख्योत्कर्षावधित्वादखिलसुखकणाम्भोनिधिश्रुतिभ्यः
मुक्तप्राप्यत्ववादान्निरवधिपरमानन्दभूमात्मकत्वात् ।
सर्वप्रत्यक्त्ववादान्निधिनिलयवधूसाम्यवादात्सुषुप्ता
वानन्दे ब्रह्मतोक्तेरपि च रसतया तत्सदानन्दरूपम् ॥ ३१ ॥

Context.—The present Sloka establishes that Brahman is bliss.

Paraphrase:—सौख्योत्कर्षावधित्वात् (आनन्दाधिक्यस्य अवसानभूमित्वात्), अखिलसुखकणाम्भोनिधिश्रुतिभ्यः (सर्वेषां सुखमात्राणां ब्रह्मणः समुद्रत्वज्ञापकश्रुतिभ्यः) मुक्तप्राप्यत्ववादात् मुक्तैः ब्रह्मणः लभ्यत्वश्रुतेः), निरवधिपरमानन्दभूमात्मकत्वात् (निरतिशयानन्द-बहुलात्मकत्वात्), प्रत्यक्त्ववादात् (परप्रेमास्पदत्वेन प्रसिद्धो यः सर्वप्रत्यगात्मा तद्रूपत्वस्य कथनात् ब्रह्मणः), निधिनिलयवधूसाम्यवादात् (भूच्छन्ननिधिपद्मिनीकामिनीभिः तुल्यतोक्तेः), सुषुप्तौ आनन्दे ब्रह्मतोक्तेः अपि (सौषुप्ते प्रशान्तानन्दे ब्रह्मभावोक्तेः), रसतया (रसरूपत्वेन) च तत् सत् (प्रस्तुतं ब्रह्म) आनन्दरूपम् ॥ ३१ ॥

*Max-Muller's Upanishads.

English Translation :—The Existent Brahman is Bliss because: —(1) It is the final limit of the excess of happiness (*i.e.*, no happiness, howsoever great can exceed It); (2) It has been declared in the Sruti to be the ocean of all the minute drops of happiness; (3) It has been declared to be attainable by the emancipated; (4) It is said to be the infinite source of boundless supreme bliss; (5) It is said to be the individual self; (6) It has been compared to hidden treasure, the nest of a bird and to wife; (7) the happiness in deep sleep has been declared to be Brahman; (8) and also It has been said to be bliss.

DHARMARANYA OR THE FOREST OF JUSTICE: AN ATTEMPT TO IDENTIFY THE SITE.

Dharm*a*ranya is the name of a sacred grove in Northern India. In the Ramayana (Adikanda, Chap. 32, verses 1—7) it is stated that Dharm*a*ranya was founded by Amurtarajasa, son of king Kusa of the lunar dynasty. As Kusa is believed to have lived about 2100 B. C. the foundation of the grove must have taken place nearly four thousand years ago. The verses of the Ramayana are quoted below :—

ब्रह्म योनिर्महानासीत् कुशोनाम महातपाः।
अक्लिष्ट व्रतधर्म्मज्ञः सज्जन प्रतिपूजकः॥ १॥
स महात्मा कुलीनायां युक्तायां सुमहाबलान्।
वैदर्भ्यां जनयामास चतुरः सदृशान् सुतान्॥ २॥
कुशाम्बं कुशनाभञ्च अमूर्त्तरजसं वसुम्।
दीप्तियुक्तान् महोत्साहान् क्षत्रधर्म्मचिकीर्षया॥ ३
कुशाम्बस्तु महातेजाः कौशाम्बीमकरोत् पुरीम्।
कुशनाभस्तु धर्म्मात्मा पुरं चक्रे महोदयम्॥ ६॥
अमूर्त्तरजसो नाम धर्म्मारण्यं महामतिः।
चक्रे पुरवरं राजा वसुर्नाम गिरिव्रजम्॥ ७॥

(रामायण, आदिकाण्ड, ३२ सर्गः)॥

In the Varaha-purana it is stated that Soma (the Moon) having stolen Tara (the wife of his own preceptor, Vrihaspati), Dharma, the god of Justice, through sheer disgust retired, into a forest. Brahma addressed the god of justice and said: "O Dharma, as you have taken refuge in this forest, it will henceforth be called Dharm*a*ranya or the Forest of Justice." The following lines are quoted from the Varaha-pur*ana* :—

स धर्म्मः पीड़ितः सर्व्वः सोमेनाकृत कर्म्मणा ।
तारां जिहीर्षता पत्नीं भ्रातुराङ्गिरसस्य च ॥
सोऽप्रयासीद् भीषितस्तेन वल्गिना क्रूरकर्म्मणा ।
अरण्यं गहनं घोरं प्रविवेश तदा प्रभुः ॥
यच्चारण्यमिदं धर्म्म त्वयाद्याश्रितं चिरं प्रभो ।
नाम्ना भविष्यति ह्येतद् धर्म्मारण्यमिति प्रभो ॥

In the Abhijnana Sakuntala, it is stated that the hermitage of the sage, Kanva, was situated in Dharm*a*ranya on *the* bank of the Malini river.

Major-General Cunningham observes: "It was in a sacred grove on the bank of the Malini that Sakuntala was brought up, and along its course lay her route to the court of Dushyanta at Hastinapur. While the lotus floats on its waters and while the nightingale calls to its mate on the bank, so long will the little Malini live in the verse of Kalidas."

There is great difficulty in identifying the site of Dharmaranya on a modern geographical map of India. Cunningham says that Malini was probably the Eurineses of Megasthenes, which flowed through Madawar (Mundore) in western Rohilkhanda near Bijnor. Dharm*a*ranya must therefore have been situated near to the river. The view, then, that Dharm*a*ranya was situated in Kamrupa, Assam, must be rejected as absurd. Some maintain that Dharm*a*ranya corresponds with modern Naimish*a*ranya and its adjoining provinces. But the most probable view is that the Malini is the same as modern Chuka, western tributary of the Saraju (Gogra), and Dharm*a*ranya lay near to it.

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EDUCATION FOR THE WHOLE COMMUNITY: SOME RECENT AND APPROVED OPINIONS.

Professor Dewar in his Presidential Address to the Scientific Section of the British Association for the Advancement of Science assembled at Belfast in September last made a most valuable contribution to the education problem which has been engaging public attention in England for the last few years on account of its importance as a supreme factor of progress in the international struggles in the

West. Notwithstanding all that has been done, as is popularly supposed, to improve scientific culture in England, Professor Dewar considers that in comparison with other nations, the English have lost ground. "The English people lack," he declared, "that diffused education without which the ideas of men of genius cannot fructify beyond the limited scope of an individual." In other words, the general average of popular intelligence in England is so low that when a man of genius talks, he still "talks like a book," that is "talks over the heads of the people." The lack of general intelligence accounts for the difficulty of effecting reforms. The Professor propounds the following remedy:—"We have to begin at the beginning: we have to train the population from the first to think correctly and logically, to deal at first hand with facts, and to evolve, each one for himself, the solution of a problem put before him, instead of learning by rote the solution given by somebody else. There are plenty of chemists who are choke-full of formulæ, they can recite theories, and they know text-books by heart; but put them to solve a new problem, freshly arisen in the laboratory, and you will find that their learning is all dead. It has not become a vital part of their mental equipment, and they are floored by the first emergence of the unexpected. The men who escape this mental barrenness are men who are somehow or other taught to think long before they went to the university." The above gives very forcibly and very pithily, indeed, what should be the real aim of the teacher—whether schoolmaster, professor, parson or politician.

The question of education with special reference to the needs of the "backward classes," in India has been also made the subject of a very able pronouncement by His Highness the Maharaja of Baroda, G. C. S. I., in the pages of *East and West.* Under the designation of "backward classes," His Highness includes—(1) Mahomedans; (2) Mahrattas, Rajputs, and roughly, the old fighting casses of India; (3) Koles and Bhils; (4) most of the agricultural classes; (5) forest tribes and aboriginal races; (6) antyajas (अन्त्यज) or the depressed classes, including Dheds, Bhangis, and other low-caste people. After making this enumeration, His Highness adds, "Indeed, if the word be applied with any wideness, so backward is the country that of detailed enumeration there would be no end."

What has specially struck us in the above as worthy of permanent preservation in our hearts is the following analysis of present-day facts. "In the old days, when the people were expected merely to pay taxes, to obey the law, to till the fields, and to form food for powder in times of war, the necessity of educating these was not felt. But in these days,

when more and more value is attached to public opinion, and a fuller and fuller measure of free and responsible activity is conceded to the people, universal education is needed to equip them for their new destinies and responsibilities. It is dangerous to have in these days of democracy, *an ignorant and, therefore, suffering* populace, for such a populace is liable to be moved by the first wind of anarchy or demagogism. Socially, as well as politically, it is the interest of a community to educate all its members. Not only is life less bright and enjoyable where the mass is uneducated, but the ignorant man makes an inefficient citizen. He is narrow and petty in his outlook, ideas and sympathies. His horizon is bounded by the immediate gratification of his present wants and impulses, his small surroundings, his domestic circle, low enjoyments, sordid cares and needs. His own affairs are too immediate to him to give room for the larger claims of the community and the nation. He is, therefore, wanting in unselfishness, civic duty and a high sense of patriotism. But in these days of commerce, the economical argument is perhaps the most obvious and pressing. The want of education puts a man at an economical disadvantage, making him by limitation of his field the slave of circumstances where the skilled brain and the skilled head chooses its own field and meets circumstances on equal terms. The loss to the nation is, if possible, still greater. For these are times of high-strung international competitions, a keen struggle for markets and monopolies, huge trusts and combines, and the unlimited application of science to the practical details of commerce and industry. In such an age, every additional ounce of brains may tell for an incalculable amount in the final apportionment of success and failure. That nation, therefore, is likely to outstrip its rivals, which gives the greatest educational advantages to every individual citizen without distinction of class or respect of person. It is because, in her unbounded faith in the democratic ideals she has devoted herself to universal and free education that America less gifted with initial advantages than England, less scientific and nationally organised than Germany, is challenging these nations in the race for commercial supremacy. Contrast with this the stagnant condition of India, where of all countries, not barbarous, there is the most culpable waste of human material, and we have the most forcible and urgent of all arguments for universal education. It is not that all can climb to the higher pinnacles of knowledge or success; **but the higher the general level of enlightenment and capacity, the greater the collective force of the nation."**

It would appear from a comparison of statements that Professor Dewar and H. H. the Maharaja of Baroda each from his especial standpoint, the one English and the other Indian, comes to very nearly the same conclusions as to the need for "general training" for all classes. Professor Dewar's view-point is that—"specialised equipment" is of no avail without a high level of general training among the entire population. He speaks of "diffused education without which the ideas of men of genius cannot fructify beyond the limited scope of an individual." His Highness's standpoint is that "the higher the general level of enlightenment and capacity the greater the collective force of the nation."

EDITOR.

THE DAWN.

एकरूपेण ह्यवस्थितो योऽर्थः स परमार्थः।

THAT WHICH IS EVER-PERMANENT IN ONE MODE OF BEING IS THE TRUTH.—SANKARA.

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SOME RECENT PHENOMENA IN INDIAN LIFE.

The philosophic instinct of some of India's best sons, under the impetus of influences from the West, has during recent years developed a strong tendency towards self-appreciation and self-expression by means of a wider cultivation of their own unrivalled philosophical literature and a wider dissemination of some of the basal truths of Life, Religion and the Universe as discovered, formulated and expounded by their Rishi-ancestors and embodied in that literature. Recent years have been witnessing a growing expansion of propagandist activity in the department of ancient Indian philosophy and religion by means of societies, lectures, books, magazines and other methods of publication.

The results of such activity have been roughly of a healthy kind, healthy, of course, from a relative stand-point. It has produced, in the first place, some sort at least of intellectual appreciation and understanding of the solutions of the vital problems of Life, Thought and Universe that have been bequeathed to the world by our Vedic forefathers. That is a distinct gain; for it will have the effect of keeping *alive* in our *minds and memories at least,* thoughts and ideas and solutions of the higer problems of Life which if they are not *mastered* would yet have been saved the ignominy of extinction or submergence either under the paralysing and weakening influences of apathy and corruption (such as was possible without the awakening that has come upon us through contact with the vigorous West) or under the more powerful influences of a civilisation which at its present stage of evolution at least has kept steadfastly before its eyes the goal of aggressive political power and advantages through all its various channels of national or international activity. In the second place, the effect of the propagandist activity we have spoken of has been in the

development of a sense of self-confidence among a growing body of the Indian people, of a dawning sense of the possibilities within their collective reach, the lack of which strikes at the very root of the priniciple of progress applied either to the lives of individuals or of bodies of individuals. A sense of undue self-depreciation is as much the enemy of progress, individual, social, national, as its very opposite. The modern civilisation of the West has suffered from the vice of *undue* self-appreciation,—of *undue* vain-glorification. The triumphs of the flesh are unduly venerated with the result that the requirements of spiritual civilisation, the demands of the higher cravings of man or society are either ignored, kept in the background or are most inadequately met and supported. The reaction of a spirit of Western vain-glorification on particular and, as we believe, limited sections of the Hindu society has been in the development of a counter-spirit of vain-glorification, which, as has been remarked already, is as much weakening and deadening in its effects upon the self-analysing, progressive spirit as its very opposite,—the feeling of undue self-depreciation. The feeling of vain-glorification in the West is founded on a lengthy succession of material triumphs in science, commerce and politics; and it could only find its corrective in a proper appreciation or belief in the inherently spiritual nature of man and consequently in a growing conviction that human activities (Karma) laws, institutions and codes must be ordered and subordinated to subserve the supreme needs and demands of the spiritual element in him. The need of the West is to know and grasp that all social, commercial or political activity that takes no note of the fundamental fact discovered by the sages and saints of all times and nations, namely, that man is a spirit first who is associated with a body afterwards—is blind, ignorant activity, which because it violates the governing law of man's being, —his essential, spiritual nature, must sooner or later end in failure. The need of the East is to know the same law in *life*: not merely to acknowledge it on the lips, but to *live* it. In the West, there is enough of living—manly, vigorous living, directed to high social purposes sometimes; but the law of *life* is unknown or unappreciated and even in too many cases undreamt of. In the East, on the contrary, we have inherited a rich legacy of ideas and thoughts on and solutions of the vital problems of man and the universe; but they remain to us as locked-up treasures—which we are unable to open and review and verify and *use* for the purposes of individual and social life. In the West there is enough of social and political experimentation and activity, but such activity and experimentation has been terribly

vitiated by its being based on a complete delusion,—delusion, namely, that man is after all material, and not spiritual in his being. In the East, the vital truth about man is not lost from sight; but we don't feel within us that warmth and glow of spirit which always accompanies a *bona-fide*, or genuine conviction. We have failed to use the knowledge that has been handed down to us through the endless generations for our purposes of a growing life whether individual or social. The civilisation of the West has been forging fetters for itself through ignorance or ill-appreciation of the Law of Life. The civilisation of the East is almost a thing of a by-gone age, half a reminiscence or a recollection, through our masterly inactivity; through our nominal allegiance to the cause of truth; through our apathy and inability to master and apply the truths of man and the universe which we have received as legacies, in the varied relations of our lives—our personal as well as social, political, industrial lives. What the fate of the West may be, we do not *know*; but if the laws of the spirit discovered for us by our Rishis hold true, there could be but one general solution to all problems of social progress and civilisation. It is that any kind of progress or civilisation that should aspire to maintain itself and grow and beautify the world must obey the fundamental law of man's being—the law, namely, that he is a spirit in his essence, although associated with a body that perishes and that the requirements of the spirit-man ultimately assert themselves,—that in fact they can never be permanently ignored or violated. Such being the truth which governs—fundamentally, ultimately, man's well-being —personal, social, and national, it is desirable that in an age of Western materialism and militarism, and of Eastern apathy, stagnation and deterioration, as much clear light as possible be thrown on the primary truths about man, his spiritual existence, relations and destiny to enable us to know rightly and to judge rightly in regard to the double-faced problem of our day. The East as well as the West are vitally interested in the solution of this problem: from what we have said it is clear that the condition of things in the West—is in fundamental antagonism with the ultimate truth about man's spiritual nature, and as such by an inevitable law of nature, it must end itself by being overthrown. It is clear also that the prolonged apathy, stagnation and deterioration of Eastern life is also a prolonged violence to the same life of the spirit in man; *it* must end itself by being overthrown. If both conditions of things represent an abnormal or unnatural stage of man's life, it must follow that a Renaissance of thought and feeling on the subject of man's essential nature is absolutely necessary. The awakening that has come to the lethargic

East through contact with the vigorous West if it is to end in anything permanently beneficial must be so guided that it may not evolve along lines and ideals of materialism and militarism. The spiritual anarchy of the modern, social and political West can never be a final substitute for the spiritual lethargy of the East manifesting itself in its social and political relations. The *reconstruction* of Eastern life must be founded, if it is to last for some time, upon something higher than the anarchical conditions of modern Western civilisation. A study, therefore, of the basal truths of man's life—his spiritual relations to the world of matter equally with the world of his spirit has become vitally necessary. Such study will enable us to judge present-day Western as well Eastern lives and conditions of social, industrial and political existence from a higher and independent standpoint. And this correlated study of the fundamental truths about man's nature, relations and destiny (such as form the staple of the religious and philosophical literature of all nations and countries, but more especially of India, the home of religions and philosophies) and of the social, industrial and political conditions that prevail at the present day here and in the West will have the highly beneficial effect of redeeming the future religious life of the Eastern or the Western householder from the charge of emptiness or of hypocrisy. The old Hindu ideal of making the actions of man's daily life conform to the perpetual requirements of the spirit within him will reappear once more in the world and will seek to reproduce itself in such renovated, animated Western and Eastern lives, forms and institutions as would be suited to the respective (transition) states of life, individual and social prevailing in the East and in the West.

Apart, therefore, from the value of the study of spiritual facts and phenomena by the individual himself from his own personal standpoint, such study has an important bearing in enabling the student of present-day conditions of Eastern and Western life to understand how far they conform to or deviate from the true standard; and so understanding, in enabling him further to suggest and carry out measures for the amelioration of those vitiated conditions. The laws of spiritual life in man and the reaction which the conditions of modern Eastern and Western life have upon the growth or retardation of his life having been properly examined, the true reformer's task of initiating lines of a civilisation—that shall not violate any of the primary laws of man's nature—the laws of his permanent being, and which shall not therefore contain within itself the seeds of dissolution;—such a task will have become comparatively easy.

From this point of view, the study of what are usually designated

purely speculative or metaphysical problems—acquires an added and especial interest. Sooner or later the higher minds of the West—its future leaders will have to study such problems—and suggest a remedy for the inherently anarchical conditions of Western social life founded as it is upon materialism and militarism. Already Comte and Spencer have had their attention drawn to the subject, and each has suggested his own remedy—which as far as we are able to judge of them contain some vital principles in their constructive aspects. But they seem to ignore or at least to put in the background the essential character of man's being—the fact namely, that man is no mere animal "having a body and an animal life, every organ merely performing its natural functions," but that he is an Infinite Spirit wantoning in endless being. For, though "through Birth's orient portal and Death's dark chasm, he is hurrying to and fro in brief dust and life," still his is the privilege of immortality. For the human soul is instinct with infinite life, behind and before, and birth and death are but two points in the wheel of its being.

EDITOR.

WIRELESS TELEGRAPHY.—III.

[*Continued from page 29, Vol. VI.*]

And first of all with reference to the tube containing the metal filings, which has been called the sensitive tube by Marconi, but which generally goes by the name of the coherer given to it by Prof. Oliver Lodge. The latter name involves a theory which, so far as observed facts go, is not altogether baseless. The first question to determine was as to the metal or metals whose filings are to be used. The phenomena of the lowering of the resistance or, which is the same thing, the bringing on of the conduc tivity by the influence of sparks, was observed with powders of all sorts of conducting substances, but with more or less degree of variation. With the apparatus at my command I have in a general way verified these observations of European scientists. Without more extended experimentation it is impossible to decide which metal or metals would be the most suitable for the purpose. I therefore give the results arrived at by Marconi. "Many metals," says he, "can be employed for producing the powder or filings, but I prefer to use a mixture of two or more different metals. I find hard nickel to be the best metal, and I prefer to add to the nickel filings about four per cent. of hard silver filings which increase greatly the sensitiveness of the tube to electric oscillations. By increasing the proportion of silver powder or grains the sensitiveness of the tube also increases; but it is better for ordinary work not to use a tube of too great sensitiveness, as it might be influenced by atmospheric or other electricity." Marconi further

found that the sensitiveness is also increased by adding a very small amount of mercury to the filings and mixing up until the mercury is absorbed. He gradually came to find that amalgamating the inner surfaces of the plugs or the metallic rods in contact with the filings so as just to brighten them was enough.

Then, as regards the size of the tube and the quantity of filings, or, which is the same thing, the distance between the opposed ends of the metal rods, he has found that it is enough to have a tube 1½ inch long and $\frac{1}{10}$ or $\frac{1}{12}$ inch internal diameter, and the filings just sufficient to fill a space of $\frac{1}{30}$ of an inch within the tube. Marconi has found, as indeed must necessarily be the case, that the smaller or narrower the space between the rods or plugs as he calls them the smaller the quantity of filings, the more sensitive is the tube; but he has also found that the space under ordinary circumstances cannot be excessively shortened without injuring the fidelity of the transmission.

As regards the fineness of the filings he says they ought not to be too fine, but rather coarse as can be produced by a large and rough file, and should be preferably of uniform grain or thickness, hence the too fine or the too coarse should be sifted out. Of course they should be perfectly dry and free from grease, and should not be compressed between the plugs or rods but lie loose in the space between, so that they may move freely when tapped.

After testing the tube, the ends of it should be sealed and though a vacuum is not essential as I have found from my own experiments, it is desirable, says Marconi without giving the reason, to have one of about 1-1000th of an atmosphere. Repeated and prolonged experiments as well as long use of sensitive tubes with and without vaccum can alone determine the necessity or otherwise of the vacuum. Theoretically, a vacuum may prevent the oxidation of the filings and help their mobility both for coherence and de-coherence.

If instead of lying loose in the space between the plugs, the filings are even gently compressed, they become conductors offering no resistance to the passage of the electric current, and consequently the influence of the sparks in diminishing their resistance is either not noticeable at all, or so slightly as not to be appreciable for purposes of telegraphy.

We had a remarkable influence of the injurious influence of compression spoken of above in the coherers that we got from the celebrated scientific instrument-maker of Germany, Herr Ferdinand Ernecke, of Berlin. These coherers, we were assured, were tested before they were sent out, and yet we were disappointed with them. They were all conductors and therefore could not fulfil the purpose for which they were intended. I wrote to Erneck, but he replied that they *were* tested and found to work well. He asked me to send them back to him in order that he may see what was the matter with them and to mend them. Just

as I was about to send them a thought struck me that perhaps at the mean temperature of Calcutta which was much higher than that of Berlin, the plugs had become permanently elongated and thus exerted compression upon the filings. The obvious remedy was to draw out the plugs gently by slightly heating the sealed ends of the tubes. I was deterred from having recourse to this simple operation for fear of destroying the vacuum in the tube, which was thought to be essential. But as there was nothing like trying, I tried and have succeeded. The coherers are now acting admirably. I have also prepared some coherers without any vacuum in them, and without their ends even being sealed, and they also are acting well.

After these preliminary observations, I proceed to describe a few experiments to show how wireless telegraphy has become practicable. As these experiments are limited to an ordinary lecture-hall and a few yards outside, I will use only the galvanometer and the electric bell for testing the action of the coherers, from which it will be seen how it is possible for experts in signalling to actually transmit messages by the radiator and receive them at the Morse apparatus in connection with the coherer.

I take this coherer and connect one of its extremities with one terminal of this galvanometer, the other extremity I connect with a pole (it is indifferent whether it is the positive or the negative pole) of this Leclanché cell, the other pole of the cell I connect with the other terminal of the galvanometer. If a current could pass through the coherer, that is, through the filings in it, there would have been deflection of the needle of the galvanometer; but there is none, which shows that the coherer is all right, that is, in a state, as it should be, of de-coherence. Now, I cause a spark at the radiator, and at once, there is deflection of the galvanometer, proving that some influence has emanated from the spark or at the place where the spark has occurred which has brought the particles of the filings into closer contact, or as Prof. Lodge says, has caused their coherence, and thus diminished the resistance of the filings to the passage of the electric current from the Leclanché cell. I give a tap to the filings, and instantaneously the needle of the galvanometer returns to zero. I cause the radiator to spark again, and again there is deflection at the galvanometer. A second tap, and there is de-coherence. In this way you can go on, causing coherence and de-coherence by sparking at the radiator followed by tapping of the coherer.

Now, observe that the distance between the radiator and the coherer is only a few feet. If I increase the distance—double, treble, or quadruple it—we have the same result. I increase the distance still more, and interpose a solid wall between the coherer and the radiator, and yet we have the same result. But, as will be seen, we cannot increase the distance indefinitely and interpose any number of obstacles without failing to produce

the desired effect, which is diminution of resistance of the coherer. Thus, if I take the radiator, as many yards as it is now feet from the coherer, no effect takes place. If I place it behind another wall there keeping the same distance, there is no effect.

There is, therefore, a certain minimum distance and a certain minimum thickness of obstacle for a certain intensity of spark and for a certain strength of current within which so much coherence may be so effected as to cause the current to pass, and beyond which the coherence is not enough for the passage of the current. If the current is increased in strength the intensity of the spark remaining the same, it will pass. Or, if the spark is increased in intensity, the former current will pass. Thus, if instead of one Leclanché cell I use two, there is deflection of the galvanometer, showing that the current from two cells has passed, where from one did not. If, instead of increasing the strength of the current, I increase the intensity of the spark at the radiator by adding to the number of cells for the primary current of the Ruhmkorff coil, the same result takes place, there is deflection of the galvanometer, showing that even the feeble current has passed through the coherer under the influence of a more intense spark where it could not under the influence of a feebler spark.

I have further observed, as I will show by an experiment, that while a certain current in passing through the coherer is enough to cause deflections of the galvanometer, it may not be of sufficient strength or electromotive force to ring a bell. Here I use only one Leclanché cell for the galvanometer, which is deflected when there is a spark at the radiator. But if I disconnect the galvanometer and substitute this electric bell in its place, it will be seen that notwithstanding repeated sparking at the radiator, the bell does not ring. But I use two cells instead of one, and the bell rings whenever there is a spark at the radiator. According to Marconi, in order to preserve the sensitiveness of the coherer it is necessary that only feeble currents should be allowed to pass through it. Hence, the necessity of a relay for working the Morse apparatus, the relay itself being acted upon by the feeble current passing through the coherer.

This observation of Marconi has been very useful as regards the maintenance of the sensitiveness of the coherer, but it introduces a difficulty in the working of wireless telegraphy for long distances. The difficulty consists in the necessity of very considerable intensification of the spark at the sending station in proportion to the distance. This has been obviated by another observation of Marconi which really constitutes his original discovery that has removed wireless telegraphy from the laboratory as a mere scientific curiosity to the broad world as a useful invention for the purposes of daily life. This is the discovery of the singular property of long wires erected vertically, high into the atmosphere, to act as catchers of electric

waves emanating and radiating from distant points, when connected with one end of the coherer, the other end being connected to earth; and to act as transmitters when similarly connected with the radiator or excitor. This property of long wires, in fairness to other observers, it must be said, was not unknown before Marconi, for between 1895 and 1896 in the experiments made by Popoff. in Russia and Minchin and Rutherford in England for the detection of atmospheric electricity by the Hertzian method these long rods were used as explorers. And Popoff had in April, 1895, actually constructed a coherer with a vertical wire connected at one end and another wire connected with the other end and the earth, and with a relay for the purpose of transmitting signals across space; and in December of the same year he entertained "the hope that when my apparatus is perfected it will be applicable to the transmission of signals to a distance by means of rapid electric vibrations—when, in fact, a sufficiently powerful generator of these vibrations is discovered."

Marconi had the merit of re-discovering this property of long vertical wires and of applying them to the radiator or excitor in addition to applying them to the coherer or detector as was done before him. Thus, all the elements for the achievement of wireless telegraphy were known before he came into the field. His chief merit consists in viewing the whole thing with the eye of the speculator in the spirit of commercial success, and this has stimulated his inventive genius to improve each of those elements so as to enable him to secure that success for the benefit of the world. The difference between Popoff and Marconi seems to consist in this, that whereas the Russian scientist was looking for improvements in the generator of electric vibrations, the Italian scientist was endeavouring to improve both the generator and the coherer, but especially the latter. The improvement in the generator or radiator is less difficult than improvement of the coherer or detector. The former can be effected by increasing the number of cells in the battery, the latter by finding out the best metal or metals for the powder of the coherer, which can only be done by numerous experiments.

MAHENDRA LAL SIRCAR.

A POPULAR EXPOSITION OF THE FUNDAMENTALS OF HINDU RELIGION AND PHILOSOPHY.

[Sri-Sri—Rama Krishna Katha-Mitra (in Bengali). Part I by M., one of Sri-Rama-Krishna's devoted disciples: Pages 394. Price Rupee one only.]

We have been long looking out for a book of this description. The fundamental truths of Hindu Religion and Philosophy have been ably and learnedly dealt with by many Indian scholars here and also in other parts of India, but it remained for *M.*, one of the devoted

disciples of the late Sri Rama-Krishna to present his Master's teachings on the basal truths of Hindu Religious Philosophy and Practice in a way that is least open to objection and which is also highly popular, interesting and accurate. We say *highly accurate* because the teachings are presented in the Master's own words. *Sri-Rama-Krishna Kathamrita* in Bengalee, for that is the book to which we refer, is wholly based upon original records in the shape of *notes* taken of the Master's deliverances in the disciple's presence. The deliverances were reduced to writing by *M.* on the *very day* of the event and purport to give the Master's own words in Bengalee as far as possible. The work of the disciple has only been to arrange those *notes*, present them in proper order, and under proper headings and in a general manner to weave the whole into a systematic work with such descriptions from the pen of the disciple of the circumstances under which the deliverances were uttered as were deemed necessary.

As to the popular and interesting character of the work, it is enough to say that it is only given to a saint speaking to a body of hearers drawn from all classes of the people, young and old, educated and half-educated, men of differing creeds, sects and persuasions, men with the weight of worldly cares upon their shoulders and men upon whom such cares sit lightly,—we say it is only given to a saint discoursing upon the high topics of religion—and especially upon the abstruse questions of the Vedanta—of Bhakti—of Jnana, of Karma, of Yoga, on the Immortality of the soul—on God-vision—on Rebirth and Re-incarnation—on God and Evil—on Revelation—on God in His Sakara and His Nirakara aspects (topics which are all dealt with in the work under review) to make His speech interesting as well as convincing to a composite audience. As an illustration of the manner on which the most abstruse truths of our religion have been expounded, we present to the reader the following exposition of the Master on the Vedantic Doctrine of Monism or Advaitabad. We have made a translation of the extracts, and although a great deal must necessarily be lost in the process of translation, of the impression and originality of the Master's discourse, still we are convinced enough would be left to the reader to enable him to judge of the unique value of the book as a most popular, interesting and *masterly* presentation of the basal truths of Hindu Religious Philosophy and Practice. In this connexion it is as well to remember that the saint who expounds and enforces the truths of *Advaitabad* with such zest, clearness and power was also a devoted worshipper of Kali, that is, of God as the Mother of the Universe. The perpetual conflict between the *Nirakar-vadin* and the

Sakar-vadin or God-the-Formless and God-the-Formful ought to cease in the light of the actual Revelations of Truth from the lips of a saint—which comes to us through the unique pages of this most delightful and instructive book.

Master: Well, I was talking of Vidya.

"But Brahman is above and beyond Vidya (the Knowledge leading God-ward) as well as Avidya (that which keeps all beings away from the Knowledge of God).

"Vidya is the last topmost step of the stairs leading to the roof Brahman is the roof.

Maya is either Vidya or Avidya. Thus Brahman is above and beyond *Maya*.

(*b*) The Advaita Position: Brahman is nirlipta (perfectly unattached): The Problem of Good and Evil solved.

"Brahman is unattached to Good or Evil. Brahman is like the flame of a lamp. You may read the Bh*a*gavatam (the Holy Scriptures) in the light of the lamp. It is equally open to you to forge a document with criminal intent in the same light.

"Again, Brahman is like the serpent. What does it signify if the serpent has poison in its fangs? The serpent is none the worse for it. The poison does not cause its death. It is poison to other creatures whom it may happen to bite.

"Much in the same way what misery, what sin, whatever evil we find in this world is misery, sin and evil *only relatively* to us. Brahman—God Absolute—is above and beyond all these things.

"Evil in creation is not *evil* to Brahman (the Unconditioned) any more than the venom in the fangs of the serpent is venom to the serpent. Brahman is above and beyond Good and Evil.

"Yes, that Being is perfectly unattached. He is not to be judged by any human standard of Good and Evil. His sun sheds light equally on the evil and the good.

(*c*) The Advaita Position: Brahman is Unspeakable (Avyapadesyam).

"Everything—the *S*astras—even the Vedas, the Pur*a*nas, the Tantras—all Holy Books—have, with one sole exception, become mere Ucchishta (like leavings of food), having been given expression to by the mouth and having thus got defiled. **That One Exception is Brahman.** For when you read the Vedas and Holy Books you must use the vocal organs and thus cause them (the *S*astras, etc.) to be in touch with the mouth, so to speak. Thus they have all been defiled (Ucchishta) like leavings of food. But there has been as yet, in this world, no created being who has been able to

give proper and adequate expression to Brahman. He is not only not capable of being expressed by word of mouth but also not conceivable by any stretch of the intellect. Thus Brahman alone is not Ucchishta (defiled by the mouth), so to speak.

Vidyasagara: I must say, here is indeed, something that I learned today. 'Brahman *is the One Substance that has not been made* Ucchishta!'

Master: Yes, that is so. Brahman is not a Being conditioned by anything—time (Kala), space (desa), the law of causation (nimitta) etc. How can you give expression to Him by any word of mouth?

Brahman *beyond all predication*: *The* Vedas *and* Brahman: *Suka* Deva *and* Brahma Jnana.

"Brahman is again like the Unfathomable Ocean. Nothing can be predicated of Him—the Being beyond the bounds of relativity—Unconditioned and Absolute! The last feeble attempt at describing this Being—the attempt made in the Vedas—is to call Him by the name of *A*nandam (Bliss Everlasting)!

"If you are asked to describe the ocean, you stand with your mouth wide open, and can only stammer out, 'Oh, what a lot of waves, what a thundering sound incessant and eternal!' That is all!

"The utmost that *S*uka Deva and Mahapurushas like him could do was to see and to touch the water of this Immortal Sea, and taste a bit! Had he gone down into that Sea, he would have been merged in it never to have come back into this world!

(d) The Advaita Position: The Great Mystery Unfathomable by Conditioned Knowledge:

The Pride of Knowledge condemned:
Parable of the Ants and the Mountain of Sugar.

"Once upon a time some ants came to a mountain entirely made of sugar. The ants, of course, had no idea that it was such a big mountain. They ate up a few particles of the sugar and were filled. Then they took—each a particle or two—which they wanted to carry home. As they went their way, they thought that next time they would be able to remove the whole thing, meaning the whole mountain, to their place of habitation!

"Such, alas! is the condition of man. It is given to some few, indeed, to realise the Supreme Being. But, unfortunately, it very often comes about that many run away with the idea that they have fully known, fully enjoyed communion with, fully realised that Being!

"The sugar mountain seems to be all but carried home by the ant; for is it not filled and satisfied with its meal? Thus too the self-deluded Rationalist! *He* is satisfied with his ounce of *Reason*. *Ergo*, he comprehends Brahman!

"People talk glibly of the Infinite, the Absolute, the Unconditioned, as if they had any conception of It at all!

"*Suka* Deva and others like him were at best ants of the larger sort. If we say that they were able to eat up eight or ten particles of the sugar, we have said enough in their favour.

"It is as much absurd to say that Brahman (God Absolute) has been known and comprehended by anybody as it is absurd to say that a mountain of sugar, as big as the Himalayas, has been carried home by some ants to be eaten up.

(*e*) The Advaita Position: The Goal of the Vedantin:

(Nirvikalpa-Sam*a*dhi: *The Parable of the Salt Doll.*)

"Once upon a time a Doll made of salt went up to the sea with a view to measure its depth. The Salt Doll had a sounding line and lead in its hand. It came to the edge of the water and looked on at the Mighty Ocean that was before it. Up to this point it went on to be the Salt Doll that it actually was, keeping an individuality of its own. But no sooner did it take one step forward, put its foot in the water than it became one with the Ocean—lost—entirely lost to view! Every particle of the salt-doll now melted away in the sea-water. The salt, of which it was made, had come from the ocean, and, behold it went back once more to get re-united to the original salt of the ocean.

"The Differentiated once more became One with the Undifferentiated."

"The human soul is the Salt Doll—the Differentiated Individualised Ego. Brahman the Absolute and the Unconditioned—is the Infinite Salt Ocean—the Undifferentiated Ego.

"The Salt Doll could not come back and speak of the depth of the Mighty Ocean.

"This is he who is fortunate enough to realise Brahman in the unfathomable depth of Nirvikalpa samadhi. Undifferentiated as He is, He comes not back out of that depth to tell the world the nature of Brahman —God Absolute and Unconditioned.

"For if it be ever possible, my Mother willing, for the Salt-Doll to come back differentiated again, it must speak in terms of the *finite*—in the language of the differentiated. It must behave as an inhabitant of the relative, phenomenal world.

"This is why the **Great Mystery** defies all attempts at explanation. The Absolute and Unconditioned cannot be stated in terms of the Relative and the Conditioned. The Infinite cannot be expressed in the terms of the Finite."

Brahman beyond all Predication: Parable of the Vedic Father and His Two Sons.

The sign of True Brahma-Jnana :—*cessation of* Vichara : Vichara *after* Jnana.

"A certain father had two sons. When they were of age he wished to put them into the first stage of life—that of the Brahmacharin. To this end they were placed under the care of an *acharya* (preceptor) and with him made to go through the Vedas and other Holy Books.

"In this way, there passed some days. The father was now anxious to see how the young men were getting on with their studies. He sent for them and asked whether they had read the Vedanta (or Upanishads) which purport to teach the Highest Knowledge to the aspirant. The sons replied that they had.

"*Father* :—So, my boys, you have read up the Vedanta! Well, do tell me what sort of a Being is Brahman.

"*Eldest son* (quoting the Vedas and other *Sastras*) :—O Father, Brahman, I know, is not capable of being expressed by words or known by the mind* O He is so and so. I know it all. (*Here quotes texts from the Vedanta*).

Father :—Very well, that will do. So you have known Brahman. You may go about your business. Now, my boy, let me hear what *you* have got to say. What sort of a Being is Brahman?

"The second son to whom this question was put, hung down his head and sat quite mute. Not a word fell from his lips. Nor did he make any attempt to speak.

"He continued in this state for a long time.

"The father thereupon said, 'Yes my boy, *you* are, after all, right. Nothing can be predicated of Brahman, the Absolute and the Unconditioned. No sooner do you talk of Him one way or the other, you state the Infinite in terms of the Finite, the Absolute in terms of the Relative, the Unconditioned in terms of the Conditioned! Your silence is more eloquent than the recitation of a hundred slokas (texts) and the quoting of a hundred authorities."

(*f*) The Advaita Position: Realisation: Brahman is the One Substance to be Realized—not described or known.

Parable of the Kancha Ghi *and the* Paka Ghi.

"Yes the *purna* jnani (he who is full of Brahma-jnana) ceases to have anything to do with vichara, *i.e.*, talking for the purpose of realizing Brahman by discrimination of the Real from the Unreal.

* Avak manasa gocharam.

"How long does the ghi (clarified butter) in a pan set over a hot oven go on making a noise? Why so long as it does not get to the right degree of heat, so as not to have any trace of water left. When the kancha ghi (not sufficiently hot) it gives those well-known sounds (kal kal).

"The paka ghi (ghi melted to the right degree of heat) not making any noise is he who has got Brahma-jnana—that is, who habitually realizes Brahman.

"The Kancha Ghi is the aspirant for Knowledge. The water with which it has got mixed must go off by its being set over the fire. This is the ahamkara—the *ego* or self which gets very clamorous in the process of being got rid of. As soon as this ahamkara is shaken off, it is Paka Ghi. No noise, no clamour?

"At the same time the impurities all settle down at the bottom of the pan. Worldliness or attachment to Kamini (or carnality) and kanchan (gold) and their attendant evils (sansuality, work with attachment, etc.) are the impurities.

"Again, the purna jnani (perfect or true jnani) is like the pitcher of water filled to the brim. When the pitcher is being filled in, it gives a gurgling sound (*bhak-bhak*). As soon as it is filled up, the sound ceases altogether. The sound is Vichara leading up, my Mother willing, to Brahma-Jnana. The sound tells us that the pitcher has not been filled up. Vichara too proves that the Goal has not been reached.

"The bee buzzes so long as it does not settle down on the flower, and begin to drink of the honey. As soon as it tastes the honey all buzzing is at an end."

Is Vichara *possible after* Brahma-Jnana?

"The question now arises, how do you explain the relation between a Siddha (perfect) Guru (preceptor) and his disciples? The Guru must talk with a view to drive away the ignorance of the disciple. *This* is Vichara. This Vichara, however, does no harm.

"The Ghi in a pan set over the fire when melted to the right degree of heat has no doubt ceased to give any sound. But throw in a Kancha luchi (*i.e.*, a luchi or a flour-cake not fried in the hot melted ghi). The result is that the Paka Ghi in contact with the water in the Kancha luchi, once more begins to give off sounds. The sound goes on, so long as the luchi is not *paka* (*i.e.*, not sufficiently fried and made ready for eating).

"The Kancha luchi is the disciple. The sound which the Paka Ghi (*the* Guru) gives the second time, is the Vichara which the Guru is called upon to make in order that the disciple might be brought into light. The cessation of the sounds tells us that the Guru has stopped Vichara as soon as the disciple has been illumined. For he (the Siddha Guru) is already placed far above all Vichara."

(g) The Advaita Position: the Higher Self (*A*tman) alone knows the Higher Self (*A*tman).

True meaning of God Unknown and Unknowable.

"The result of the foregoing position (*e*) is that the Higher Self (*A*tman) alone knows the Higher Self (*A*tman). The Vodha Svarupa (He, the Knowledge Absolute) is capable of being realised by Vodha (Him, the Knowledge Absolute) alone.

"Chaitanya alone can know (realise) Chaitanya.

"The 'differentiated' Soul (j*i*va) so long as it goes on to be differentiated and work on the lower plane cannot as such realise Brahman.

"The Undifferentiated (Brahman *or the S*uddha *A*tman) alone realises the Undifferentiated.

"This is the true meaning of the expression 'God Unknown and Unknowable.' Brahman is known to the *S*uddha *A*tman or, what is the same thing, to Brahman the Undifferentiated."

(h) The Advaita Position: M*a*y*a* is unreal.

Vedanta *Philosophy as interpreted by the School of S*ankara.

"All differentiation takes place in the domain of M*a*ya. In other words, M*ā*y*a* causes the differentiation. It ends with the cessation of M*a*y*a*.

"All the facts of the Universe—every object, every phenomenon that comes under Creation, Preservation and Destruction,—under Body, Mind and Soul; under waking, dreaming, having dreamless sleep; even under meditation (Dhy*a*n) etc., etc., all come under M*a*y*a*.

"All these are looked upon as Mithy*a* (unreal) by those that interpret the Ved*a*nta philosophy after *S*ankara and the like. These interpreters are Jn*a*nis.

According to these, Brahman is Satya (real); Jagat (the universe) is Mithy*a* (unreal).

"Mithy*a* means, unreal, *i.e.*, when looked at from the point of view of the Absolute. To the Absolute or the Undifferentiated, the Jagat (universe) and J*i*va (man and other creatures) are unreal, for the only Reality is the Absolute.

"When M*a*y*a* is realised as unreal, the Aham (the differentiated Ego) has been completely shaken off or effaced, so to speak. There is no trace of that Aham left behind. It is perfect Sam*a*dhi.

"It is absurd to say 'That Jagat (world) is unreal' so long as we remain convinced, that we ourselves (our Aham) are real. A person who has not realized Brahman cannot realise that the world is unreal.

"On the other hand, a Mah*a*purusha (Saint) returning from Sam*a*dhi

to a lower spiritual plane gets back, My Mother willing, his Aham—his differentiated attenuated, though purified, *ego.*

"Getting back his *ego*, the Saint is thrown once more upon the world of relativity. So long as his ego is real to him (real relatively), the world is real too, and Brahman is unreal (relatively).

"He with his differentiated *ego*, restored to him, perceives *Maya* as real. Only the *ego* being purified by God-Vision, he sees the Jagat of *Maya* (phenomena of the universe) as manifestations, to sense, of Brahman the Absolute.

"He also sees *Maya* as either Vidya or Avidya.

"Vidya-Maya leads Godward. To this belongs Viveka (discrimination), Vairagya (non-attachment), Bhakti Prema, (Love of God) etc. Avidya leads away from God. To this belong Kamini, (carnality), Kancan (riches, honours, work with attachment, etc).

EDITOR.

HISTORY OF STONE MANUFACTURE AT GAYA.

About 200 years ago Ahalya Bai brought some Santarases from Jaipur for building the famous stone temple of Vishnupada at Gya. After the construction of the temple these Santarases, seeing the vicinity of Gaya abounding in such good useful stones, settled in Gaya. It is they that founded the manufacture of stone articles at Gaya. At present there are only four families of these Santarases at Gaya of which one family is in a flourishing condition. Another family of note which has made its mark in the manufacture of toys is in indigent circumstances, there being no good market for toys now-a-days at Gaya.

The noted name in the family of the makers of articles of domestic use was Baldeo Santras. He is dead. His representative is Gangadhar Santaras. The noted name in the family of toy-makers was Damoder Santaras. He is dead. His representative is Ganga Bishun Santaras. These persons require encouragement, else the manufacture which is already declining will in the near future be extinct. There was a time when these men used to receive substantial encouragement from European Officials, such as Mr. Drummond, who used to purchase toys and other artistic things, to send them over to England and France. Then the manufacture was in a flourishing condition. The causes of the decline of the manufacture are perhaps these:—

(1) Rise in the price of stone. (2) Exorbitant demand of annual

rents for leasing out the quarries. (3) Rise in the wages of labourers who work the quarries. (4) Introduction of glass, and enamelled articles which serve the purposes of stone articles. (5) Consequent demand for cheaper things. (6) Apathy of the public. (7) Constant recurrence of famine. (8) Extinction of certain stones.

It is to be noted with regret here that the Rani Saheba of Tikari (7 annas) has raised the annual rent for the quarry of Dhanmahua stone from Rs. 100 to Rs. 300. The Santarases cannot afford to pay such large sums and therefore since the beginning of this year the Dhanmahua quarry is not being worked.

"It was one of the most valuable malleable stones and so the most useful, and it was the best among the cheaper stones. Next year it will be a thing of the past. The hills of Katari contain the quarries of Kasouti or touchstone which have of late been purchased by Rai Baijnath Singh Bahadur who has filled up the old worked-out quarries and demands now Rs. 600 to Rs. 700 as the annual rent for the lease of the quarries.

But this has not become so much a grievance with the Santarases as the locking up of the Dhan-Mahua quarries—because only two or three things are made of Kasouti, whereas all the variety of articles and toys and fineries are made of the Dhanmahua stone. The action of the Tikari estate, therefore, in a manner lays the axe at the very root of the Industry for which Gaya is noted.

In the hills that surround Gaya no stones for purposes of manufacture, except small bits of stone, called Brahmajoni of greenish tint, fit only for very fine small toys,—can be found.

They supply hard granite and stones for road-metalling. The piers of the South Behar Railway bridge over the Fulgoo are made of this granite.

Stone articles ordinarily sold at the Bazar of Gaya are made of stones brought from the hills of Pathurkati and Katari, a few miles north and west of Gaya. Most of the articles are prepared in these villages, but the above two families of Santarases have also their work-houses at Gaya. The stones found in these hills are of numerous varieties. The articles ordinarily exposed for sale in the shops of Gaya are made of the following kinds of stones:—

(1) Kasouti or Touchstone found in the Katari hills, (2) Tamra (very hard stone) fit only for medicinal mortar, found in the Pathurkatti hills, (3) Pajna (ringing stone) found in the Pathurkatti hills, (4)

Urdiya (large-spotted stone) very rare, found in Pathurkatti hills. (5) Jamdani of four kinds found in the Pathurkatti hills (*a*) Rai, (*b*) Rura, (*c*) Dat, (*d*) Tilason. (6) Bagchala—of three kinds found in Pathurkatti hills—(*a*) Murli, (*b*) Sabja, (*c*) Howe. (7) Sing-pahari found in Pathurkatti hills. (8) Satnaree, good malleable stone. (9) Lohia (hard jet black stone). (10) Dhanmahua, soft malleable stone. (11) Gowbachhua (cheap soft stone) found at the Western foot of the Brahmjuni hills in Gya town, rare now (12) Durbay (soft earthy stone).

There are other stones which are very rare now-a-days such as Brahmjuni stones of whitish and yellowish colour also called Gowbachhua.

Of the hard stones, only a few things are made, such as plates, cups, tumblers and mortars. Fine and beautiful things are made of Howe, Singpahari Satnaree and Dhanmahua. Of late, Moonghyr stones have come to be imported into Gaya. Only plates are made of the Moonghyr stones.*

SONALAL BOSE, B. L.,

SYSTEM OF WORK AND TRAINING UNDER THE DAWN SOCIETY, CALCUTTA.

No fee being charged for membership, youngmen are given to understand that power and position in the Society and the rewards which the Society has to offer go only to those who submit to a graduated course of training under the Rules of the Society and qualify themselves for work as members of the Society.

The chief means at the disposal of the Society for the training of its members are the following:—

(I.)

(*a*). The holding of two weekly classes—one called the Moral and Religious Training Class held under Pandit Nilkantha Goswami who lectures in Bengali on the Gita; the other called the General Training Class held under Babu Satis Chandra Mookerjee, the General Secretary, who lectures in English on such general subjects as:—

(*i*). The ancient village communities of India and the lessons of self-help which they afford;

(*ii*). The spirit of organisation as determining factors in the lives of nations with historical illustrations;

* This matter originally appeared in our esteemed contemporary, *New India*.—*Ed.*

(*iii*). The chief considerations in determining the wealth-producing power of a nation and their equitable distributions;

(*iv*). What part the tastes and enlightenment of different communities play in the revival and preservation of the indigenous arts and industries of a country;

(*v*). To what point education as a means of qualifying ourselves for service under Government or under other public or private masters is a source of help to the community;

(*vi*). The spirit of unity amity and brotherhood as the underlying base of all progress, temporal or spiritual;

Etc. Etc. Etc.

(II.)

(*b*). The second means adopted by the Society for the education of its members is to provide them each with what has been named a *Record-Book*. In this book any member who is so disposed may record what he has learnt from the lectures delivered in the weekly classes. The *Record-Book* being the property of the Society, it has to be properly issued by the Literary Secretary and returned to the same officer within two days of issue. It is the duty of the General Secretary of the Society to look over the Record-Books, guide members in their preparation and submit the same to the President for occasional inspection. Members who attend at least sixty per cent. of the total number of lectures delivered at the two weekly classes and who also prepare their Record-Books properly are called Recognised Members. These Recognised Members are for administrative purposes formed into a separate section and are also endowed with special powers and privileges.

(III.)

(*c*). The third means at the disposal of the Society for the education of its members is the holding of what is called *Discussion classes* among members. Periodically on any class day, the members present at a meeting are divided into a number of groups, each group being provided with its own member-Chairman appointed by the General Secretary who puts to the whole body one or two general questions arising out of the lectures delivered which the members composing a group are asked to discuss among themselves informally. Each member is required to make a note in his Record-Book of the discussion held in his own group while the President of each group is to submit an official report to the General Secretary. Members who

do not conform to the above rules may at the option of the General Secretary be excluded from the list of Recognised Members.

[*N.B.*—Owing to the difficulties inseparable from inaugurating a new movement, the plan of the Society under this head was not fully given effect to during the term ending December 4, 1902.]

(IV.)

(*d*). The fourth means at the disposal of the Society for the education of its members is to vest the entire administration of the Society (except in the department of the Teaching) in the body of Recognised Members—or the Recognised Section of the Society who meet once a week in the Society's Rooms under their own elected Chairman and conduct work under the direction of an elected executive Committee of the Section who have to prepare business in the shape of Resolutions on statements as the case may be. The General Secretary or Treasurer of the *Dawn Society Fund* (a public account of which has been opened in a local Post Office Savings Bank) is one of the members of the Executive Committee of the Recognised Section, that Committee acting as the Trustees of the Fund. The Financial Secretary elected by the Recognised Section is also a member of the executive whose accounts are subject to the supervision of the Recognised Section and are open to inspection by anybody who is interested in the work of the Society. The Treasurer has the power of submitting Resolutions to the Recognised Body and can take part in the discussions; but he has no power to vote on any measure. As General Secretary he has the power of vetoeing any measure passed by the Recognised Body; and in case of any material conflict of opinion between himself and the Recognised Body, he shall have to submit the whole case to the Permanent President of the Society for final orders. The meetings of the Recognised Section may be attended by any ordinary member who, however, shall have no power of taking part in the discussions, or by any visitors who will be provided with separate seats. The Proceedings of the Recognised Section are recorded in a separate Minute Book, and are then open to inspection by any member.

(V.)

(*e*). The fifth means at the disposal of the Society for the education of its members is the holding of Social Gatherings of Members. These gatherings are of two kinds:—(1) Introduction Meetings, and (2) General Social Gatherings. In the former, the General Secretary presides and directs the function. Each member present is required to enter his name in a separate book and also the name of

any other member present on the occasion by whom he should like to be introduced to the meeting. Members and their spokesmen are then presented to the meeting one by one; while it would be the duty of a member's spokesman to tell the meeting all that he knows of the member's qualifications in the varied relations of his life, without at the same time casting any the slightest reflections upon the character or the conduct of any other members of this Society or of any other Society. It would be the duty of selected officers of the Executive Committee to take down notes of the spokesman's speech and to embody the same in a short paper which is then pasted to a paste-board and is open to inspection by any member of the Society. In this way, the general qualifications and virtues of members become known to each other and the growth of a solidarity of feeling among members is considerably helped. A better method, however, of introducing *new* members to the Society has been suggested and accepted. The Introduction Meeting paves the way for the General Social Gathering. In this the members come and mix freely and promiscuously with each other, cultivate their acquaintance as members of this Society, talk on general subjects including the work of the Society; and separate after having passed a pleasant half hour or so. The general management of the General Social Gathering is usually in the hands of the General Secretary who is assisted by the members of the Executive Committee whose duty it is to introduce any new member or members of a shy or retiring disposition to other members by way of 'breaking the ice,' so to say.

(VI.)

(*f*). The sixth means at the disposal of the Society for the education of its members is to train them in discovering the best men in their own body on whom their corporate choice should fall as most worthy to receive such honours and rewards as the Society has to offer. The following methods have been specially devised to effect this object:—

First.—All Members have not the same powers in the making of this choice; each member's powers in this respect being represented by the number of votes which he has. Thus one vote of a first class member or voter (who is usually a Recognised Member) would be equivalent to two votes given by a second class voter—who is usually an ordinary Member or one who at the end of a term is found to have attended at least fifty per cent. of the lectures delivered at any one of the two weekly classes, and who is not included in the Recognised Section.

Secondly.—The second means adopted to effect the above object is by seeking to measure and allow for the influence of personal considerations in the disposal of votes by members. Thus it is laid down that in determining the names of prize-winners and of scholarship-winners under the Society's system of election, there shall be thrice as many votes at the disposal of a member as there shall be prizes or scholarships, the prize-election and the scholarship election being held separately. And further that no voter shall be competent to vote either for himself or to give away more than one vote to any other member, or to abstain from disposing of the full number of votes.

Thirdly.—The voting being in every case secret, the electors feel less hampered in their choice of nominees than if the names of such nominees were open to inspection.

The net results of these three Rules have been that the elections of the Society held under the presidency of Babu Hirendra Nath Datta, M.A., B.L., have been markedly successful; and the *Dawn* Society may well congratulate itself upon the manner in which its voters have discharged their duties.

(VII.)

(*g*). The seventh means at the disposal of the Society for the education of its members is arranging for interviews between selected groups of members of the *Dawn* Society and their elders. Thus in the course of this last term, the Society arranged for two such interviews:—The Hon'ble Mr. Justice Gooroo Dass Banerjee received in November twelve representative members of the *Dawn* Society at his residence and made the acquaintance of every one of these members, put questions and received answers and in every way gave the members a most cordial reception. The moral effect of such interviews upon the minds of members is very great; while they also give an opportunity to our elders to come in contact with selected bodies of our college-youngmen and to know of the currents of thought and feeling that animate them and affect them for good or for evil.

Mr. Justice Banerjee writes to the General Secretary—

"I am glad to learn that both you and the members of the *Dawn* Society who came to my house yesterday have been much pleased with the interview we had. I need hardly add that I share the pleasure equally with you. My young friends have made the most favourable impression upon me. I shall be happy to meet other members from time to time."

The other occasion in the course of the last term was when the President of the Society was pleased to receive a deputation of fifteen representative members of the Society and gave them a most cordial reception. The Society has further arranged for interviews of groups of members of this Society with Babu Rabindra Nath Tagore, Babu Hirendra Nath Datta, Professor J. C. Bose, M.A., D. Sc., C.I.E., and Babu Hem Chandra Mallik, at their residences.

(VIII.)

(h). The eighth means at the disposal of the Society for the education of its memers is a library of books and magazines for their use. The Library remains open every evening for one hour. Most of the magazines are American and English. There are also Indian Magazines both in English and in the vernacular. The books and magazines are mostly lent. The Society excludes all light literature from its Library and political newspapers are not ordinarily kept for use; but it is proposed to keep important cuttings from newspapers, Indian as well as English, for the use of members.

N. N. GHOSE,
President, Dawn Society.
SATIS CHANDRA MUKERJEE,
General Secretary.

A STUDY OF INDIAN CASTE.

I.—CASTE OR HONOUR?

A graver intellectual confusion than that caused by the non-translation of the word 'Caste' there has seldom been. The assumed impossibility of finding an equivalent for the idea in English, has led to the belief that there is something mysterious and unprecedented in the institution. People become bewildered as to whether it is a religious or a social obligation. Everyone demands of the reformer a conflict with it. The whole question grows obscure and irritating.

Yet all this time we have had an exact synonym for the word and the parallel is the closer, since our word connotes the same debateable borderland between morals and good taste. 'Caste' ought to stand translated as 'honour.' With oriental quaintness it is true, India has given a certain rigidity to this idea, but her analysis of the thing itself is as profound as it is acute.

For our conduct is commonly governed far more by social habit than by considerations of right and wrong. When the tide of the ethical struggle has once set in over some matter, we may regard ourselves as already half-lost. Why are my friend's open letters absolutely safe in my presence, though I am longing for information that they

convey? Why can money given for one purpose not be used for another, when all the canons of common sense and expediency urge that it should? Who will confess to an effort in speaking the truth, at any cost whatever. Why, when I am annoyed, do I not express myself in the language of Billingsgate? To each of which questions one would reply somewhat haughtily that **the point was one of honour, or, that such happened to be the custom of one's class.**

Yet if we examine into the sanction which honour can invoke, there is nothing beyond a rare exercise of the power of ostracism. The Church excommunicates, the law imprisons, but society merely "cuts" the offender in the street. Yet which of these three inflicts the deepest wound? It is as true of London as of Benares, that **caste-law is the last and finest that controls a man.** For, it comes into operation at that precise point where tribunals fail. It takes cognisance of offences for which no judge could inflict penalties. It raises standards and demands virtues that every man will interpret according to the stringency of his pride, and yet that no one can feel himself to have wholly fulfilled. And it does all this without ever permitting the sentiment of merit. Having done all, one remains an unprofitable servant. For no one would count, the punctual discharge of debts, (all debts are debts of honour), the hauteur that brooks no stain upon the name, the self-respect that builds the whole ethical code upon itself, as religious observances. **These things were due, we say, to our birth, or blood, or position before men.** It is true that their non-fulfilment would leave a stain upon the conscience, and it is also true that the attempt to work out the obligations of honour must be the immediate test of the sincerity of one who proposes to lead a life of greater devotion and earnestnes than common.. Still, caste is not the same thing as personal piety, and perhaps for this reason complete renunciation of its claims and benefits is essential in India to the monastic life.

There is another point about our Western conception of Noblesse Oblige. Few as the persons may be who could formulate their sentiment, **the fact pervades the whole of the social area. Each class has its own honour.** If respectable employers feel compelled to think of the comfort of their workers, respectable servants feel equally compelled to keep their lips shut on their master's affairs, and either responds to an appeal in the name of his ideal. The priest may find the honour of his profession in conflict with that of the detective, but all the world will uphold the faithfulness of both. The efficient realisation of his ideals by the schoolmaster will involve an occasional

pardon, even of a grave offence, if he conceive forgiveness to be the best formative influence which at the moment he can command. The very same effort in the merchant will require a distribution of punishment that is rigorous and just, since order, integrity, and unfailing promptitude,—not the development of human character—are his ends. Thus, **every man, in every critical act of his life, calls silently for the judgment of his peers and refuses all other.**

The weaknesses of Caste everywhere are manifold. 'For society, like the individual, is always apt to insist upon the tithing of mint and rue, and to neglect the weightier matters of the law. But it is not usually the martyr who marks its worst failure. He is the white dove cast forth by crows, that is a member of a higher, tried by a consensus of the lower castes. We have here a case of Government usurping the functions of society, much as if the headmaster should exercise authority in a dispute amongst boys.' For, it is essential to the very idea of honour that every caste should be autonomous.

II.—THE TRUE CASTE-VICTIM.

The true failure of Caste occurs whenever it establishes such an ascendency of social opinion over the individual's conscience that his power of advance is impeded, and he becomes less of a man or less really beneficent socially, by remaining more of a gentleman,—a state of things which is not uncommon amongst ourselves! For, we may postulate that **all ideals are helpful only in so far as they subserve a man's manhood and freedom,** and destructive, the instant they render him less able to express his own inmost will. It is he, therefore, who ought to have been a martyr and chose ease, who is **the true caste-victim,** not the hero of an *auto-da-fe.*

That this is a real danger, we all know. What Protestant has never exalted the creed of his sect over freedom of thought? What Catholic never put comfort above spirituality? What politician has not preferred party above principle? What student of science has never been prejudiced against new truth? And if we look without, where we do not see the mere breaker of conventionality treated as outside brotherhood? Where do we not find persons conforming to usages that displease them, merely because they would be inconvenient to dispute?

A certain sweeping justification of such facts may be urged, inasmuch as there are circumstances under which the cohesion of the group is well worth the sacrifice of the liberty of a few individuals. And the habitual outrage of custom without reason is perhaps rightly

held to be as anti-social as any felony. **In the last resort, however, social pressure must be held in bounds, for nothing should interfere with a mân's right to try himself, or sap the roots of his independence.** And society is a vague and irresponsible magistrate, with so little illumination as to his own purposes and tendencies that he frequently mistakes the pioneers of his own march for deserters, and orders the stoning of prophets whose sepulchres and monuments will be erected by his children.

III.—SUPREME PURPOSE OF HINDU EVOLUTION IN THE PAST: PRESERVATION OF THE ARYAN RACE-TREASURE: OF SANSKRIT LITERATURE.

This question of the inner trend or intention of the social movement must form the law in whose name all doubtful cases are tried. And while it is never easy to determine the point accurately for one's own people, **in the case of the Hindu race, the supreme purpose of their past evolution** is quite apparent. Even a cursory reading of the Laws of Manu displays Indian society as united in a great co-operation for the *preservation of the ancient race-treasure of Sanskrit literature.*

The feeling must have grown up when the Vedas alone required conserving and the families entrusted with various portions were encouraged to become in all ways dependent on the community, that every energy might be devoted to the task in hand. This is the real meaning of prostration at the feet of Brahmans, of the great merit acquired by feeding them, and of the crime of killing one. **It is not the man, it is race-culture, that is destroyed by such an act.**

As ages went on and the Upanishads and other things were added to the store, that which was hitherto memorised became entrusted to writing. The 'Vedas' became 'Scriptures.' And now the *methods* of psychology, of astronomy, of mathematics made themselves felt as integral parts of the Aryan treasure, in common with Sanskrit literature. This widened the conception of culture without liberalising the social bearings of the question, and the Brahmanic Caste continued to be recognised as the natural guardians of all learning, the old religious compositions being still regarded as the type.

If we ask how it happened, that the Aryan folk became so early conscious of their responsibility in the matter of Sanskrit letters, there can be only one answer. They found themselves in the presence of other and unlearned races. This point brings us to the question of the origin of strongly differentiated castes in general.

IV.—WHAT IS CASTE?

In its nature, caste is, as we have seen, honour, that is to say, an ideal sentiment by whose means society spontaneously protects itself from some danger against which it is otherwise defenceless. For instance, life in Taxas having been for many years dependent on the possession of horses and safeguards against the horse-thief being few and difficult, he came to be the object of unprecedented social abhorrence. Horse-stealing was the last crime a lost soul would stoop to. In a similar way, as some think, may have grown up the Indian feeling about cow-killing. If the cattle, in time of stress, were killed for good, agriculture would be unable to take a new start, and so a people accustomed to eat beef grasped the situation perhaps and renounced the practice. But since these two sentiments pervade whole nations, they are not exactly what we are accustomed to think of as caste, inasmuch as in the latter there is a distinct gradation of rank connected with the sentiment. In the term "blackleg" applied by trades-unionists to competing forms of labour we have an instance of the kind we want. Here we have an occupational group giving birth immediately to the ideal which is necessary to its safety. Throughout the worlds of Love, of War, and of Work, indeed, honour is an instinct of the greatest potency. How few men, after all, desert to an enemy as spies! How strong is the feeling of class-obligation amongst servants and working-men! This element is very evident in the Indian industrial castes which are often simply hereditary trades-unions. No Englishman is so powerful, nor is any Hindu so hungry, that one man could be bribed to take up the trade of another. Nothing would induce the dairyman, for instance, to take charge of a horse, or a laundryman to assist the household.

V.—THE SECRET OF RIGID OR HEREDITARY CASTES.

But the very strongest and perhaps also, ugliest of all possible roots of Caste is the sense of race, the Caste of blood. We have an instance of this in the animosity that divides white men from negroes in the United States, and we have other instances less talked of, all up and down over vast British possessions. There is probably no other emotion so inhuman which receives such universal sympathy as this. For, it is fundamentally the physical instinct of a vigorous type to protect itself from fusion. And both sides participate in the revulsion. Here we have the secret of rigid castes. For the rigid caste only is hereditary, and of hereditary castes the essential characteristic is the refusal of intermarriage.

VI.—HISTORIC PICTURE OF THE RISE OF INDIAN CASTE: ELEMENTS OF THE PROBLEM.

Granting, then, what could not well be denied, that the Aryan forefathers found themselves in India, face to face with inferior and aboriginal races; what may we gather from the nature of the caste system to-day to have been the elements of the problem as they more or less clearly perceived it?

Those elements we may infer to have been four in number.

FIRST ELEMENT.

1. They desired above all things to preserve the honour of their daughters from marriage with lower and savage peoples. Exclusion from marriage with any but one's own caste became the rigorous rule, and the penalty fell on the father and the family that permitted a woman to go unguarded on this head. To this day, if a son marry beneath Caste, he degrades himself, but if a daughter be wrongly given the whole family become outcasted.

SECOND ELEMENT.

2. They seem to have desired to preserve the aboriginal races on the one hand from extermination and on the other, slavery of the person,—two solutions which seemed later the only alternatives to Aryan persons in a similar position!

Those aborigines, therefore, who became dependent on the Aryan population, had their definite places assigned them in the scale of labour, and their occupations were secured to them by the contempt of the superior race.

We must not forget, in the apparent harshness of this convention, its large factor of hygienic caution. The aborigines were often carrion-eaters and always uncleanly in comparison with their neigbours. It was natural enough, therefore, that there should be a refusal to drink the same water, and so on.

On the other hand, it is **one of the mistakes of caste, everywhere, that it institutionalizes and prepetuates an inequality which might have been minimised.** But we must not forget in the case of the Indian system the two greater evils which were avoided altogether.

THIRD ELEMENT.

3. The Aryans realised very clearly that it was not only their race, but also their civilisation that must be maintained in its purity. The word 'Aryan' implies one acquainted with the process of agriculture,—an *Earer* of the ground, to use an Elizabethan word,—accus-

tomed, therefore, to a fixed and industrialised mode of living, evidently in contrast to others who were not.

The fire, and the processes of cooking and eating food are easily distinguished as the core of the personal life and establishment in a climate where habits can at any time be made so simple as in India. It is these that can never be dispensed with, though they may be arranged for to-night in a palace and to-morrow in the jungle under a tree.

In view then of the *necessity of safeguarding their system of manners*, grew up the restrictions against eating with those of lower caste or allowing them to touch the food and water of their betters. The fact that the Aryan could eat food cooked by Aryan hands alone implied that the strictest preliminaries of bathing had been complied with.

By a continuous crystallization, all caste-laws, from being the renunciation of broad canons of refinement as between Aryan and non-Aryan, came to be the regular caste-barriers between one class and another of the same race.

In this way they lost their invidious character.

It is undeniable that this caste of the kitchen, so brilliantly called 'don't touchism' by a modern Hindu leader,—lends itself to abuse and becomes an instrument of petty persecution, more readily than the intermarriage laws. Some of the saddest instances of Caste failure have occurred here. *Nevertheless, the original intention remains clear and true*, and it is by no means completely obscured even with the lapse of ages.

FOURTH ELEMENT.

4. It was, however, in their perception of the fourth element of the problem that the early Aryans triumphantly solved the riddle of humanity. They seem to have seen clearly that amongst the aborigines of India themselves were *many degrees of social development already existent, and that these must be preserved and encouraged to progress.*

From such a comprehension of the situation sprang the long and still-growing graduation of non-Aryan castes; some of which have established themselves in the course of ages, within the Aryan pale. Marriage, for instance, is an elaborate and expensive social function in the highest classes. But as we descend, it becomes easier, till among the very low castes almost any connection is ratified by the recognition

of women and children. This is a point in which Eastern scores over Western developments; for, in Europe, the Church has caused to be reckoned as immoral what might, with more philosophy, have been treated as the lingering customs of sub-organised race-strata.

As is the *nature of Caste, mere social prestige constitutes a perpetual stimulus and invitation to rise,* which means, in this case to increase the number of daily baths, and the cleanliness of cooking, and to restrict to purer and finer kinds the material used for food, approximating continually towards the Brahman standard. For, is it not true that Noblesse oblige? This fact it is that makes Hinduism always the vigorous living banyan, driving civilisation deeper and wider as it grows —and not the fossilised antiquity superficial observers have supposed. Such is the historic picture of the rise of caste. The society which was thus originated fell into four main groups.

VII.—FUNCTIONAL GROUPING OF CASTES: THE AUTONOMY OF CASTES:

1. Priests and learned men,—the Brahmans:

2. The Royal and the military Caste:

3. Professional men and merchants,—the middle class, or Bourgeoisie, as we say in Europe: and

4. The working people or Sudras in all their divisions. (Of the second group only the Rajput branch remains now stable. For the military caste, finding itself leaderless under the Maurya dynasty, is said to have become literary, and is certainly now absorbed in the Bourgeoisie.)

The functional grouping, however, is traversed in all directions now-a-days by the lines of Caste. In the mountains it is no uncommon thing to find the Brahmin acting as a labourer, impressed as a coolie or working as a former, and in the cities he belongs to the professional ranks. Many of India's most learned and active sons, on the other hand, belong to the third and even fourth divisions. And the new castes which are of constant growth are less easy than the old to classify. Every new community means a new caste in India. Thus, we have the Muhammadan, the Christian and the modern Reform castes,—of all of which one peculiarity is,—no belief in the caste principle!—as well as others. And who shall determine, for instance, to which of the four main grades, Muhammadanism, with its inclusion of peasant, citizen, and prince belongs.

The fact is, if a man's mode of life be acceptable to his own caste-fellows, the rest of Indian society has no quarrel with it. And this

autonomy of Castes is the real essential for social flexibility, fundamental equality.

VIII.—THE BRAHMAN IS NOT THE PRIVILEGED MONOPOLIST OF RELIGION: HE IS THE COMMON CHANNEL OF RELIGIOUS LORE.

As bearing on this point, few utterances have ever been so misquoted as the great dictum of Buddha that he who attains to God is the true Brahman. For, this is misquoted whenever it is made to imply that the Brahman holds in any sense a monopoly in religion. No possible statement could be more foreign to the genius of Hinduism. When we read the shortest and greatest of India's gospels, the Bhagavad Gita, (a poem composed by Brahmans, preserved by Brahmans, and distributed throughout the length and breadth of the country always by Brahmans), we find ourselves in the presence of the most comprehensive mind that ever contemplated Hindu life. The compassion of Buddha perhaps looms greater across the centuries; but in dealing with social problems His very tenderness and spiritual fire make Him second to Krishna, who was always calm, broad, and consistently national in His outlook. We must accept the Gita as an authoritative pronouncement on Hindu society. And the Gita rings with the constantly re-iterated implication that "he who attains to God is true man," while it interprets all life and responsibility as a means to this end. We have to remember too that the Gita is made up of the very best of the Upanishads and was specially written for the benefit of women and the working-classes, who, as destitute of classical learning, had little chance of studying those great Scriptures. But its contents were to depend upon Brahman effort for promulgation. Another witness to the fact that spirituality has always been regarded in India as the common human possession lies in the Hindu word for religion itself,—*dharma* or the *manners* of man. This is very striking. The whole weight of the conception is shifted away from creed, much more from caste or race, to that which is universal and permanent in each and every human being. And last of all, we may remember that the greatest historic teachers of Hinduism, Rama, Krishna, and Buddha, besides many of the Upanishadic period, were men of the second or military caste.

No; the Brahman was never in any sense the privileged monopolist of religion: he was a common channel of religious lore, because his actual function was Sanskrit culture, and Sanskrit happens to be the vehicle of the most perfect religious thought that the world ever produced; but "realisation itself has always been recognised as a very different matter from this, and Brahman or non-Brahman has been accepted wherever it appeared. The advantage that the priestly caste did undoubtedly enjoy, however, lay in the fact that in their case the etiquette of rank led directly to the highest inspiration, as the scholar's life even in its routine will be nearest to that of the saint.*

SISTER NIVEDITA.

* This is an adaptation from an article which originally appeared in *The Brahmacharin* of Jessore:—*Editor.*

THE DAWN.

एकरूपेण ह्यवस्थितो योऽर्थः स परमार्थः ।

THAT WHICH IS EVER-PERMANENT IN ONE MODE OF BEING IS THE TRUTH.—SANKARA.

WHOLE No. LXVII. } CALCUTTA, FEBRUARY, 1903. { No. 7. VOL. VI.

CASTE-ORGANISATION AND NATIONALITY: THEIR RESPECTIVE PLACES IN THE SOCIAL ECONOMY.

The importance of classification of human units for the purpose of *conjoint action* is nowhere disputed. United work with a view to achieve a definite end must not be performed in a hap-hazard fashion, but must be done and conducted in ways and methods which require some thought, trouble and practical experience for their elaboration. When the best ways and methods have grown or been devised, we say that the work has been properly *organised.* A proper *organisation,* in fact, implies first and generally that there has been some method in the disposal of the forces which would aid us in our work; and secondly and specially, that this method is directed to assigning proper duties to the separate parts or units that go to make up the organisation, such that they all by the performance of their own duties help or co-operate in the accomplishment of the whole work. Such being the real truth about organisation, it is clear that no great or even small ends or results could be achieved without the employment of *organised* methods of work. Whenever, therefore, we find that an individual or a number of individuals are doing the same work or kind of work, we, as thinking beings, have to inquire primarily whether these be acting on their own account, *i.e.,* for their own selfish or personal good or aggrandisement; or whether they are acting in harmony with other classes of individuals performing other and independent functions.

This acting in harmony with other classes of individuals evidently means that we are not opposing their good, now are they opposing our good. But a little reflection will show us that in a community of selfish beings this is not possible, unless we could agree in placing before our eyes some higher object of interest or ambition in which we,

i.e., the competing classes are both and equally interested. The spirit of selfish competition amongst two groups of individuals pursuing their independent selfish, *i.e.*, personal ends could never be checked, merely by the idea that if they go on quarrelling and fighting they both suffer, and that somebody else, a third party who has his own interest to serve, is the only gainer. The spirit of jealousy and rage among enemies is never quelled by the mere thought that such jealousy and rage would work their ruin to the benefit of third parties. The past history of India gives ample illustrations of the truth of this statement.

Nor are illustrations wanting in social life. The practice of demanding high dowries by the *owners* of eligible sons on the occasion of their marriage which is now so prevalent in Hindu society is a practice whose mischief is felt sooner or later by every member of that society and yet receives no check but goes on flourshing with every growing year and with every circumstance of advancing education. So also the same sort of mischief operates among people or classes of people who have frequently to resort to our Courts of law. It would appear, therefore, that apart from the influence of high religious ideals or of injunctions upon individual conduct, the mere fact of two competing individuals or groups suffering, grievously it may often be, from their mutual competition, hardly operates in the vast majority of cases as a serious check upon the baneful growth of the self-ruining, self-destructive spirit in man.

The point of all this is what has already been promised, namely, that when we find separate groups of individuals working independently of each other at their own allotted work, we have to inquire whether, besides such independent working, there has been *harmonious acting* among the groups—whether, in fact, in pursuing each his separate good, each has no occasion to interfere with others' good,—an ideal which, as we have shown, is not possible for large masses of people acting in a self-interested or personal manner; unless there is besides some common object before all the different competing groups, in which they are all equally interested, in which they have a common self-interest.

In the former case, where several independent groups act each with reference to its own personal independent good, without having any conception of a wider, self-interest in which all are equally (or more or less) interested, the inevitable result would be a clash of interests, and a perpetual weakening of each other's forces. It is here

where the importance of *organisation* comes in; by organisation it being meant—not the abolition of all the independent, separate groups each working at its own function, but the skilled combination and harmony flowing from such separated groups, having, in spite of their independence or separation, a common self-interest. Organisation implies and involves in the first place, a *classification* of members into groups, each group performing a common function or duty; and in the second place, it implies and involves the existence of some sort of common self-interest among these classified groups. We have sought to emphasise the importance of having an object of common self-interest among separated and independent groups or bodies of individuals; this common self-interest furnishing the cement, *i.e.*, the common bond of union among otherwise separated and independent groups. It is in this way alone that co-operation among these groups is possible. It is easy, therefore, to see that the reason why the caste-organisations have hitherto failed to promote unity among groups of caste-communities is because the object of common self-interest for all the different castes—the bond of their union has been wanting. "The three hundred millions of the population of India are divided into about five thousand different communities which are called castes and between which there is no intimate social intercourse," says Dr. Bhandarkar. "The spirit of caste-pride," says the same great authority, "has come into free play and jealousies and discussions are the result. No sincere co-operation can be expected under the circumstances."* As we have said and tried to establish this spirit of caste-pride and all its attendant evils are only possible so long as the different caste-organisations maintain a separated existence, so long as they are not informed and vitalised by a common principle of life, a common object of self-interest,—their cement and bond of union.

This principle of common self-interest, this cement and bond of union, it is easy to see, is no other than the principle or spirit of *Nationality* working among the independent caste-orgainisations. These caste-organisations would never have attained their present state of extreme rigidity,—the state, namely, which does not allow free scope to the working of the principle of internal reformation,—if the necessity of such reformation, if the absolute evil of such rigidity were brought home to these organisations, these Indian caste-communities, not by means of abstract logic, but by their discovering that, if they had to pursue not one but *two*

* *Vide* Dr. Bhandarkar's Presidential Address at the Sixteenth Indian Social Conference held in Bombay in December, 1902.—*Ed.*

objects of *self-interest*—namely, first, the separate and special interests of each caste-organisation, and secondly, the wider but a common self-interest—that of a united or corporate life,—the maintenance of a high standard of *purity* was a *sine qua non* for these organisations. The principle of nationality is the one overruling principle by means of which the independence of the parts is secured, while guaranteeing the unity of the whole. **All organisations, political, social, industrial, &c., are bound in the long run to produce evils of a gigantic character, if the parts are not united to each other by the presence of some common object in which these parts are more or less interested.**

And further, organisations of whatever kind,—political, social industrial, &c.—are bound to decay and die, when not all the parts but only some, try to acquire a position of ascendency, and seek to impose the law of their partial lives upon the whole community of those parts. That empires and nations and principalities have decayed and died is because of their violating the law of united life, of corporate existence among separate, independent parts. That Hindu community is passing through a process of silent structural dissolution is because some of the caste-communities having forgot to obey the law of a united life in active and sympathetic co-operation with the other caste-communities (such co-operation alone perpetuating social existence) tried to usurp the life of the whole. Whenever a single community or organisation seeks to aggrandise itself at the expense of other communities or organisations, all belonging to the same society, the result is that the former, acting very like a cancer grows and grows by withdrawing all life from the other parts of the body politic, but ultimately succeeds in killing itself as well as the others, thus bringing about a common ruin.

Caste-organisations in India, therefore, if they are to be a source of strength and not of weakness to the entire social structure, must conform to the law of life, namely,—

1st.—That each such organisation must know itself to be and act as an organ of the whole body politic; and this is possible only when each such organisation has a specific function to perform. A caste-organisation whose members have ceased to perform its functions by reason of which it has a claim to be reckoned as an organ of the whole body has naturally ceased to be an organisation necessary to the existence of the body.

2nd—That each such organisation, when it is not nominally but really and naturally an organ of the body, must in the nature of things feel the interests of the whole body to be its own; and as a natural consequence, it must know and feel that its own functions and the functions of its brother organisations are all necessary to the maintenance of the health and the growth of whole body politic, —the whole social structure. If this is felt and understood, it follows, as a necessary consequence, that an organisation which together with other brother organisations makes a whole social structure, should never seek to crush out the life of the other component members of the body, thus aggrandising itself for a time, but should seek to perpetuate the life of the whole body (and thus also of itself as a member) by helping on the discharge of appropriate functions of each of the other members.

EDITOR.

CASTES AND SUB-CASTES IN BENGAL: FORMATION AND GROWTH OF THE KYASTHA COMMUNITY: A NEW THEORY.

[*Concluded from page 192, Vol. VI.*]

N.B.—This article seems to be important for a novel theory of the origin of the Kyastha community. We should be happy to receive communications for publication on the same subject. As for the rest of the article, we would advise the reader to read the same in connexion with Sister Nivedita's two articles appearing in the December and January numbers.—Editor.

Now with the vaunted Regeneration of Hinduism many obsolete, conservative customs of Hindu society have received encouragement from interested quarters. But how far it has succeeded to resuscitate the old institutions, it is difficult to say.

Mr. Risley has proposed an ethnological classification of the people in his ast census and much bad blood has been created among different caste-people. Curiously most of the Sudras claim either to of Kshetriya or of Vaisya origin according to the choice made by their leaders. The Vaidyas only seek to preserve their rank in modern society without looking back to their ancient origin. But the Kyasthas of Bengal claim most zealously to be of the Kshetriya Varna, and to have rank and precedence over the Vaidyas, and over other Sudras. They desire to drop the prefix *Das* to their family name in resentment lest it should be traced to the aboriginal "Dasyus." It is apparent that local differences of habitation

merely could not introduce so much divergence in habits, customs, professions, and in the education of the varous *sub-divisions* among the castes. Now, each division has such numerous sub-divisions. The *Raree* alone claim 83 such sub-divisions. The Ballalic Kulinism and its regulations are not recognised by the *Utter Rarce* and the *Barundar* divisions. The natural inference should be that the Bengal Kyasthas do not come down from the same ancestors. The varied *gotras* among the Kyasthas also point to the same view. It is admitted on all hands that the Kyasthas come from the writer-class of old and that they are a learned community in Bengal. "It is a noticeable fact that the minister of war and peace were always Kyasthas." This fact, together with the physical features of the caste, disprove their aboriginal origin. Their intellect and their capacity to improve point to the Aryan descent. Considering that the writer-class was known even in the days of Yaynavalka as civil officers, it is only reasonable to think that this caste formed itself about the age of the invention of letters or writing. It is said that writing came into use in India more than two thousand years ago. The question is, who adopted the writer's profession, and formed the Kyastha class. The priesthood monopolized learning; and the military or the trading community were educated only in primers; and the Sudras were kept ignorant dunces. Now, we can see that the militia was most needed to preserve the peace of the country and so could not very well be spared for anything else. Then looking to the whole body of Brahmins, Vaisyas and the Sudras, we find that these grew very numerous. Now, the last class was incompetent to read or write. It would appear, therefore, that the mediocre intellects among the Brahmins and the unsuccessful members of the trading community welcomed the clerk's work as suitable avocation for themselves and their children. It may be possible that invalid Kshetriyas also joined the rank, but their number must have been small. The members of this new guild forming the clerkdom of old Bengal, were recruited therefore from separate castes, who gradually adopted new habits, customs, and rituals different from any of their respective ancestries, with a view to preserve unity and uniformity among themselves as a single caste. But the separate caste-origins of the separate sub-divisions prevented intermarriage among these sub-divisions. Hence we find that inter-marriages among Rarees, Utter Rarees and so on, are prohibited. They do not even take one another's rice on occasions of social gathering. When Adisur invited five Brahmins from Kanuj to celebrate his *Yajna* five assistants (probably Lalás) accompanied them, who settled in Bengal and did not return home. They married Bengalee girls. Their descendants are the Kyasthas of Bengal according to the books of heraldry preserved by the *Ghataks*. But we find that Utter-Rarees and Barendras did not mix with others, nor intermarry. They kept up their separateness from the descendants of the new comers. Like Vaidiks among Brahmins, they kept aloof. The *Clerkdom* formed by the amal-

gamation of members from different classes, however, overlooked the ceremonies of the twice-born in order to assert a separate existence. The Karans not having access to it, adopted trade and agriculture, pen and ink never forming the tools of their labour. Now, the Bengal Kyasthas having taken to English education got a good start in the race for social position, and they took up their rank next to Brahmins under British administration. The Subarna Vaniks, a condemned class in the old days, by their riches and education raised themselves from the position of out-castes, though they are still low in the social rank. They may deserve better for aught we know. So long as the Kyasthas remain educated and rich, their rank in modern society is secure,—despite all adverse census classification. Call them Sudras or Vaisyas, Kshetriyas or Brahmins, their place in the community must needs stand high.

In some form or other, castes do exist in all civilized countries; but they not being hereditary, the regulations thereof are less tyrannical than the caste of India. Bengal is unconsciously following Europe even in the caste system. The educated and the rich, no matter what their birth may be, must take precedence in modern society. Therefore, neither ethnological derivation, nor additional sacraments and rituals will avail much to raise any caste-people in the social scale.

The Subarna Vaniks, as we have said, by wealth and education have succeeded in advancing their position. Like the Piralis among Brahmins, they are no longer marked out-castes in the society—the change has come on gradually under the British administration,—by the enforcement of equality of castes by the British Indian Courts. Any illegitimate social pressure imposed by caste-leaders upon defaulting parties may now be removed without difficulty by applying to the Criminal or Civil Courts. The *legal status* of Brahmanical society has been lost long since; the observance of caste rules being merely complimentary, so far as the Courts are concerned.

A. K. GHOSE.

CHRISTIAN MISSIONARY ANIMADVERSIONS ON THE POSITION OF WOMEN IN INDIA:—I PRELIMINARY CONSIDERATIONS.

[*By Sister Nivedita.*]

I.—GENERAL STATEMENT.

We have never heard from the missionaries of the beauty of Hindu home life, of the marvellous ideals which inspire the Indian woman, of the Indian customs teeming with poetry and sweetness. We have never heard from them the strength and virtues of Indian

women; we have heard only of their faults and failures. The missionaries have created and left in tact wherever people were grossly ignorant of facts, the picture of the crocodile luncheon of babies served up by their mothers, along the Ganges bank. Everywhere in England and Amerca I have met people who believed this story, and I have never heard of a professed apostle of truth who tried to set the impression right. Infanticide occurs in India, under pressure of poverty and responsibility as it occurs in all countries; but it is not practised there any more than here, nor is it lauded as a religious act; *nor is infanticide perhaps anything like so common as amongst ourselves. There is no custom in India of insuring a baby's life for £5, when the funeral expenses are only £2;* nor is there any infant mortality ascribable to the intemperance of mothers in that country.

II.—NECESSITY OF ENLARGING AND IMPROVING ONE'S POINT OF VIEW IN ESTIMATING FOREIGN NATIONAL CUSTOMS.

It is obviously absurd to constitute one's own national customs an ideal standard, against which every other country is to be measured. Hindu and Muhammadan women are not seen much in public, either shopping or visiting. We are; and we enjoy our custom and we call it Freedom. Does it follow that the Eastern woman's restrictions constitute a grievance? Would it not be wise, in attempting to demonstrate this, to share as completely as possible the physical and emotional environments which have conditioned her habit? It is conceivable that having done this, we should conclude that even in the climate of India or Persia more muscular activity and greater social liberty would be of benefit to women. But unless our judgment were fatally warped by prejudice, we should *at the same time* reach the counter-conviction that a corresponding power of stillness and meditative peace would be a vast gain in the West.

III.—THE GREATNESS OF APPRECIATING THE TRUTH IN FOREIGN NATIONAL LIVES.

Have we seen greatness of any kind that was not associated with the power of recognising *one's own kinship with all?* What made Charles Darwin? The eye to see and the heart to respond to the great sweep of one infinite tide through all that lives, including himself. What made Newton? The grasp of mind that could hold the earth itself as a mere speck of cosmic dust in the play of the forces that govern us. Even the warrior, whose whole business seems to be antagonism and separation, becomes distinguished on condition

only of his sense of union with his followers. And the saint or the poet never yet was, to whom all was not human and all more beautiful than myself. To such men condemnation is not easy; slander is impossible. An orgy of sensation provoked by libel, be it of individuals, or of nations, whether at afternoon tea or from a church pulpit, would seem to them unspeakable vulgarity. They could not breathe in such an atmosphere.

IV.—ACCOUNTS OF THREE CLASSES OF PERSONS SUPPOSED TO BE WARM RELIGIOUS FRIENDS OF THE INDIAN PEOPLE.

I have had the privilege of listening to the accounts of three classes of persons who are supposed to be warm religious friends of the Indian people, educational missionaries, lady doctors and modern occultists. Their statements were sincere and deliberate expositions of the outlook they had been enabled to take on Hindu life. I listened in vain for one strong word of appreciation for the *problems which Indian society has undoubtedly solved,* or a single hint that they understood *the positive ends for which that country was making.* But in every case the conviction seemed to be, that the dignity and hope of the speaker's own gospel depended absolutely upon showing the hollowness and rottenness of other forms of life. The last-mentioned exposition was confined to a discussion of suttee, infanticide, and thuggeeism as the most representative factors of Indian experience which could be discovered; touched upon the worst sides of caste, and propounded the theory that England's responsibility to the East would be fulfilled when she had persuaded oriental people to "give up their rediculous old habits," and take to ways which occultists would consider more rational.

From lady-doctors we hear of the medical and surgical darkness of the Indian village—greater, of they are right, than that of parallel populations in England fifty years ago. One of the most offensive customs, to their minds, is that of the isolation of a woman at the moment of child-birth. Now, whatever this custom shows,—and it is not perhaps universally applied with the full consciousness of the reason that prompted it originally—it does certainly indicate a very elevated state of medical culture at some past epoch in Hindu history. The room in which birth takes place must afterwards be broken up and taken away. *Hence, a simple mud-hut is built outside the house.* When once the child is born, for some days the mother may not be visited by any member of the household. She is attended

only by an old nurse and whatever medical adviser may be called Is this treatment, then, so very inhumane? Yet it is exactly what we blame the Hindu people for not adopting in cases of plague and other infectious diseases. It is, of course, easy to imagine that rules of such a nature may often be badly, even stupidly applied; but there can be no doubt that they demonstrate very clear and distinct ideas of bacteriology at their inception.

V.—ACCOUNTS OF THE SUPPOSED RELIGIOUS FRIENDS OF THE INDIAN PEOPLE FURTHER CONSIDERED.

All through the caste rules, and regulations for bathing, run similar scientific conceptions, which astonish competent observers by their hygienic desirability. It is of course a pity that medical science everywhere is not up to the 20th century London level; but in this respect, India is not more degraded than England, Scotland, Ireland themselves. One of the evils of our present organisation of (medical) skill is the complete inability induced by it to appreciate *the value of tradition and mother wit.* It is easy to point out flaws in Indian village medicine, midwifery, and what not. But how do we account for the great dignity and suppleness of the general physical development, and for the marvellous freedom of the race from skin-blemish of any kind? This, too, in a country where the germ-fauna is at least as dangerous as that other fauna of the jungle which includes the tiger and the cobra.

In urging the above points, I am not denying that modern science can aid, but only that it has no right to despise Indian village lore. Every system, of course, mistrusts every other. This is the superstition of party. To this fact I trace the phenomenon, detailed by the medical missionary sometimes, of men of sufficient means saying; "If you can cure her for 20 shillings (probably ten rupees) you may do so,"—alluding to a wife or some other woman-member of the speaker's household. The charity of the lady-doctor rushes immediately to the conclusion that his wife's or mother's health is a matter of complete indifference to her client. *Ergo,* that most Hindu men are similarly careless. *Ergo,* that Hindu men hate and despise Hindu women. Supposing the anecdote to be true, could reasoning be more absurd? It does not occur to the missionary lady-doctor that her knowledge or honesty may be viewed with suspicion as against old and tried methods of treatment in which everyone has confidence.

VI.—COMPETENT WITNESSES WANTED TO SEE AND UNDERSTAND THE TRUTH.

Unentitled, disinterested, witnesses to the facts of things are wanted and something also of revelation must be added. Something of the function of the poet who sees through and beyond the fact to the goal, the ideal. And so the Hindu has a right to demand three things from the foreign religious friends of the Indian people:—(1) an accurate statement of fact; (2) careful elucidation of the meaning of the fact; and (3) some attempt to perceive the law to which *the fact and its intention* stand related. Tht demand will be answered, of course with widely varying degrees of ability, but it ought to be impossible to receive credit for an account that ignores any of these factors. Thus, by way of illustration of the imperative importance of the above propositions in reference specially to the testimony of foreign witnesses, we may refer to the question of Indian caste. *Caste, in missionary eyes, is an unmitigated abuse.* These missionaries confine themselves to an account of its negations and prohibitions, ignoring all its elements of the race-guild and race-protection type.* And they say all this while every moment of their lives in India has been a ratification of that new caste—of race-prestige which is one of the most striking phenomena of the present age. But if I were a Hindu I do not think that missionary criticisms of caste would disturb me much. I should realise that this was the form which the life of my people had assumed; that in it was comprised all that the word *Honour* connotes in Europe; and that the critics in question had given no sign as yet of understanding either their own society or mine intelligently.†

SISTER NIVEDITA.

* The subject of "Indian Caste" has been most elaborately dealt with by the writer of the present article in the December 1902 and January 1903 numbers of this Magazine.—*Editor.*

† The more important statements contained in this article are taken from Sister Nivedita's article entitled "Lambs among Wolves" appearing in the *Westminster Review* for October, 1902—*Editor.*

INDIAN ARTS AND INDUSTRIES: FOREIGN INDUSTRIAL DOMINATION: THE VIEWS OF THE LATE MR. JUSTICE M. G. RANADE.—I.

We propose in the present series of articles to bring together some of the late Mr. Justice Ranade's views on the one most pressing problem of the day, namely, the Indian Economic Problem. His Highness the Gaekwar, speaking as the President of the Indian Industrial Exhibition at Ahmedabad, in December 1902, emphasized the importance of the Economic problem in language that can never be misunderstood. "The Economic problem is our last ordeal as a people. *It is our last chance.* Fail there and what can the future bring us ? We can only grow poorer and weaker, more dependent on foreign help ; we must watch our industrial freedom fall into extinction and drag out a miserable existence, as the hewers of wood and drawers of water, to any foreign power which happens to be our master. Solve that problem and you have future before you, the future of a great people, worthy of your ancestors and of your old position among nations."

If the problem, indeed, is of such urgent and tremendous importance as His Highness puts it, the focussing of thought on the subject is also urgent and important. His Highness declares that on the solution of the problem no two people agree, except that it is urgent. If so, the focussing of thought on it in its details, the education of the educated people in the various practical aspects of the problem with reference to its special bearing on Indian needs or wants, with a view to produce a strong, lasting conviction in their minds such that such conviction may produce a corresponding conduct —such a focussing of thought, we say, such an education of the people has become imperative. And in reference to this urgent Indian Economical problem, the views of the late Mr. Justice Ranade, deserve and indeed compel, a most careful and attentive consideration. His speeches and writings on the subject show a thorough mastery of the problem, and although we may not subscribe to every single detailed view which he holds, yet there could be no question that the legacy of ideas which he has left us on the subject is one of our richest possessions. For the convenience of our readers, we will try under appropriate headings to present a bird's-eye-view of his thoughts and ideas on the Economical problem (as expounded in his speeches, papers, and other writings), with special reference to the preservation and growth of Indian arts and industries, and as far as practicable in the Master's own words.

I.—GENERAL.

Our people in times of old set to themselves only one question, and all our works on philosophy and science commence and end with the problem of deliverance from evil—which is described to be threefold (1) the weakness and sinfulness of our internal nature; (2) the evils we suffer from others, whether gods or men; and (3) lastly, the evils we suffer by reason of our physical surroundings. People will not easily agree as to the method of deliverance from the *first set of evils*—hence the diversity of creeds. In the advocacy of their own particular creed, they will not even admit the right of others to cross-question them about their faith, and they are too often disposed to deny the existence of any sin or weakness when challenged by others. In respect of *the second class of evils*, different classes of men will necessarily disagree to some extent, and proposals for co-operation are not always welcome. *In regard to the third class of evils*, however, presented by the poverty of our resources, and our physical weakness, all men are agreed, and all men have a common interest in co-operating for the common good. In this country especially, there is no room for a difference of opinion. Hindus and Mahomedans, Parsis and Christians, the rulers and the ruled, the privileged and the unprivileged, all stand on a common platform.

II.—FOREIGN POLITICAL DOMINATION AND FOREIGN INDUSTRIAL DOMINATION CONTRASTED.

The political domination of one country by another attracts far more attention than the more formidable, though unfelt domination which the capital, enterprise and skill of the country exercise over the trade and manufactures of another. This latter kind of domination has an insidious influence paralysing the springs of all the varied activities which together make up the life of a nation; and this influence was so paramount at one time in British India that there were grave reasons to fear the worst consequences of this inevitable change. In the eighteenth century, England, like the other countries of Europe, desired to have colonies of its own in all parts of the world, chiefly for the command of the markets, thus opened up to the Home manufacturers and traders. The colonies were looked upon as and in fact were actually called, *plantations*, where *raw produce was grown to be sent to the mother country to be manufactured again back to the colonies and to the rest of the world.* This policy suggested restrictive measures of action intended to foster domestic trade and arts at the sacrifice

of the best interests of the colonies. The American War of Independence put an end to this scheme of economic Government; and since then, though the sphere of English colonisation has been multiplied during this century beyond all previous record, yet these new colonies have from the first been allowed to work out their own destinies, free from the leading strings of domestic control. The great Indian dependency of England has, during this century, come to supply the place of the old colonies. This dependency has come to be regarded as a plantation growing raw produce to be shipped by *British* agents in *British* ships, to be worked into fabrics by *British* Skill and Capital, and to be re-exported to the dependency by the *British* merchants to their corresponding *British* firms in India and elsewhere. The development of steam power and mechanical skill joined to increased facilities of communication added strength to the tendency of the times—the looking upon India as a sort of plantation for the growth merely of raw produce—the gradual *ruralisation* of the great dependency and the rapid decadence of indigenous manufactures and trades. Thus was brought about the first surrender that India had to make by way of homage to British Skill, Capital and Enterprise.

[**Note by the Editor.**—Mr. Ranade's views on the British *Industrial* Domination of India—or the homage, as he puts it, paid by India to British Skill, Capital and Enterprise—are no doubt true; but it is necessary always to remember that the Industrial Domination was helped by the political domination. "If we go a little deeper into the matter," says His Highness the Gaekwar, in the speech to which we have referred,—" we find that there is a further reason which does not depend on the natural working of economic laws, but which is political in its nature, the result of the acquisition of political power by the East India Company and the absorption of India into the growing British Empire." In the earlier part of the 18th century, declares the same authority, the carrying trade had passed from the Arabs to the East India Company, and with it too the control of nearly all our exports. But there was still a large body of trade in Indian hands; even then our manufacturers held their own and were far superior to those of Europe; even then, there were thousands of skilled artizans; we supplied our own wants and exported enormous quantities of goods to other countries. At the time in question, Europe had not been able to bring her machines to any remarkable point of development; and this was long, long before the wonderful changes in Western Industrial methods and appliances brought about by the application of Electri-

city and Chemistry. Nor, at the time in question, did England possess any superiority in industrial and technical education over India; for then there was no such training, and *England* has never relied on it for commercial capacity. Therefore, we must seek elsewhere for a rea. cause which would explain the decline of a once-flourshing Indian export trade; we must seek for it, to quote the Gaekwar, "in the acquisition of political power by the East India Company and the absorption of India into the growing British Empire." This political change had the gravest effect on the economic life of India. In the first place, we have the economic policy of the East India Company which, so far as its export trade was concerned, accepted manufactures, indeed, *but paid an equal, if not greater attention to raw materials.* Even our internal trade was taken away from us by the policy of the East India Company; there were heavy transit duties on all inland commerce and there were commercial Residents in every part of the Company's possessions who managed to control the work of the local artizans and so thoroughly, that outside their factories all manufacture came to an end. On the top of this, came the policy of the British Government which despite the powerful interests of the East India Company, crushed Indian manufacturers by prohibitive import duties, and then the application of steam to manufactures. Therefore, with all this against India at home and abroad, our manufactures declined; and this decline was hastened into ruin with rapid advances in the improvement of machinery and the adoption of a Free Trade Policy by England. For, once the manufacturing superiority over England which India had originally possessed, was gone and was transferred to her old rival, by the initial action of political forces *aided subsequently* by the operation of economic laws, all the later economic consequences and depressing moral consequences were sure to follow. A country whose export in manufactures had been crushed out and whose manufacturing superiority had passed into hands that would never allow any measure of protection to Indian manufacturing industries, soon and necessarily became stagnant. And the Moral evil acting on the national mind was no less great than the Economic. For, not only was the struggle in itself unequal, but the spectacle of a mighty commerce overshadowing and dominating ours, flooding our markets and taking away our produce for its own factories induced a profound dejection, hopelessness and inertia among a people who could once boast of most flourishing manufactures.]

INDIAN ARTS AND INDUSTRIES: NOTES AND COMMENTS.

I.—DECLINE OF AN INDIAN INDUSTRY.

The following questions were put by an Indian non-official member of the Madras Legislative Council at a recent meeting of the Council in regard to the condition of the *Tanning Industry* of Madras; and the following answers were received.

(*a*) Has the attention of the Government been drawn to the rapidly declining condition of the tanning industry in the Presidency of Madras which was once in a flourishing condition?

Answer.—The Government are aware that there has been a decline in the tanning industry of the Presidency.

(*b.*) Was the number of tanneries in the Presidency till recently upwards of 300, whereas the present number is only 100?

Answer.—The statistical returns of large industries supply the following figures:—

Year 1898—122 tanneries working.
„ 1899—134 „
„ 1900—174 „
„ 1901— 15 „

(*c*) Whether the existing tanneries are not in a struggling condition?

Answser.—The Government have no information on the point.

(*d.*) Whether it is a fact that the United States of America are levying an import duty at rates ranging from 12 to 20 per cent on all tanned skins, while admitting raw skins free of duty?

Answer.—The Government have no information on the point.

(*e.*) Is it a fact that the exports of *raw untanned skins* during the past five years have risen in value from Rs. 4,49,42,970 to Rs. 5,57,66,378; while the exports of *tanned* skins fell in value from Rs. 4,49,41,853 in 1900—1901 to Rs. 2,26,40,461.

Answer.—The figures quoted are substantially the same as those given on pages 49 and 53 of Vol. I. of the Annual Statement of Trade and Navigation for the year ending the 31st March, 1902, published by the Government of India.

(*f.*) Whether in the United States a new tanning process (called the *Chrome*) has been introduced and whether the Government will cause inquiries to be made in view of the new method being introduced in this Presidency? Whether the Government will be pleased to take such other steps as may be called for to revive the tanning industry in Madras?

Answer.—The Government believe that some new tanning process is now used in America, but have no detailed information and are now enquiring into the subject.

II.—AS LIKELY TO AFFECT 50,000 INDIAN WEAVERS: A SUGGESTION FOR THE OPENING OF AN INDUSTRIAL SCHOOL FOR WEAVERS.

The same member also put the following questions and received the following replies :—

(*a.*) Is it a fact that in English factories a mechanical contrivance has been recently introduced and is now being used for the production of laced and embroidered cloths of the kind manufactured in Salem, and that if these factory-made cloths are introduced into the Indian markets it would seriously affect the living of so many as 50,000 weavers of Salem and other places ?

If there is no definite information on the subject, will the Government be pleased to inquire into the matter and take steps to open a school in Salem for teaching the weavers, so that they may avail themselves of the machine aid as in English factories ?

Answer.—The Government are aware that a loom has been patented of the nature referred to and there are probably many such patents The information that Government have in the subject raises no apprehension that Salem manufactures will suffer in competition with the English products ; there is therefore no reason for opening a school of the nature suggested, in Salem.

III.—INTRODUCING THE MANUFACTURE OF ENAMELLED IRONWARE INTO MADRAS: A HELPFUL SUGGESTION.

The following further questions were put by the same gentleman and the following replies were received :—

(*a.*) What is the value of enamelled ironware imported into Madras from Austria and Germany during the last three years ?

Answer.—The information desired is not available. Imports of enamelled iron-ware have heretofore been included under "*Hardware, other Sorts;*" but since October last (1902) under instructions from the Director-General of Statistics, they are being separately registered. The figures from the last months are :—

Value of imports from Austria—Rs. 12,548. Value of imports from Germany—5,216

(*b.*) Having regard to the increasing demand for such articles of domestic use, will the Government be pleased to introduce the industry in Madras and open an institution to teach people here in the manufacture of such articles ?

Answers.—The question of introducing the manufacture of enamelled iron-ware into Madras will be considered, when the views of the Government of India on the proposals of the Industrial Schools Committee are received. The Government are not prepared at present to take any steps in the matter.

ZOLA'S VIEWS ON WESTERN SOCIAL PROBLEMS.

Zola, in common with many of the strongest, most logical, and clearest-visioned thinkers of the present age, was an ardent socialist. For years he struggled to arouse the sense of justice in the people by his great works; and though a tinge of sadness marked his thoughts when he contemplated the slowness with which society advanced, he was far from being a pessimist. In a notable issue of the New York World (December 30, 1900), Zola penned a remarkable paper dealing with the achievements of the nineteenth century and the promise of the next hundred years. On the slow progress of the past and the promise of the future he has much to say that is worth the careful consideration of the Indian as well as the European student of Sociology. Here are some of his views:

ZOLA ON MODERN CIVILISATION.

"An undeniable increase in material comfort and equipment must be credited to the nineteenth century; but that alone does not constitute civilization. Better food, fast steamers, telephone and electric lights—all that is only the accessory part of human development. Means to happiness, certainly; but not happiness. Has the telephone diminished the hunger of the hungry?

"Our brains are still be-fogged; our private and public life is still based upon vile, exasperating ignorance. Reason, now proclaimed by a hundred prophets in every country, has everywhere the greatest trouble to penetrate through the thick folds of inane prejudice that enwrap individuals and institutions. . . .

"It is useless to delude ourselves. You may tinker all you please—there will be no true civilization until the present social system is radically modified.

"Look in this country; honestly examine yours; then search through all the others. Injustice and suffering everywhere! hideous cancers gnawing darkly at the very vitals of society. Ah, if an angry revolt does not this

very day convulse the world it is because most people go about like horses with blinkers on both sides of the head —capable of seeing nothing but what is immediately under their noses.

"Civilized? Not yet! Have you read Tolstoy's books, or mine, or those of a hundred other earnest explorers of modern society? Have not the strikes that constantly take place, in your country as elsewhere, taught you anything? Can anyone deny that at this very moment by far the largest fraction of so-called humanity is groaning under abuse and obsolete laws; that the whole strength of governments—army, police, and courts—is always ready to back the unrighteous exactions of a small privileged class?

"Have you not learned that there are everyday thousands—not hundreds, thousands!—of men and women who die of want, of cold, of disease unattended to, and that, too, frequently after these miserables have given twenty, thirty, fifty years of their labour to the making of all that we enjoy? Can you forget that children—little children precious as yours—are, this minute, suffering famine and absorbing the germs of all vices? Can you forget that in every hospital, prison, factory, tenement there are crimes that cry for vengeance to Heaven?'

II.—ZOLA ON THE PROGRESS OF SOCIALISM IN EUROPE.

On Socialism and also on the promise of the morrow he had this to say:

"To think that even to-day Socialism—the wonderful doctrine of salvation—scientifically and practically irrefutable though it is—is compelled to gain converts slowly, one by one, condemned without hearing by most people, its advocates driven from every point of vantage—the church pulpit, the university hall, the editorial chair! Why, to make Socialism go down your progressive American throats, Edward Bellamy (he said so himself) was compelled to sugar-coat it with the fiction of 'Looking Backward."

"These are facts which must be bravely uncovered to the public's gaze. But, after all, I am not a pessimist. Deploring the present, I look forward into this pregnant new century with joyful confidence. Ignorance, the passive yet formidable enemy of our social liberation, the accomplice of all who profit by existing wrongs, is being attacked vigorously."

III.—THE SOCIAL REVOLUTION OF THE 20TH CENTURY.

On the pending social revolution, which he believed would be inaugurated before 1910, Zola said:

"By what means will the inevitable changes be effected? Will there be a universal and violent upheaval, a period of disorder, followed by the temporary proletarian dictature which many social experts consider necessary, forcibly to reincorporate aristocrats and plutocrats into the rank and file? That would be the French revolution and all its calamities re-enacted on a large stage. Yet the French revolution, now universally approved of, was provoked by lesser evils than those which now prevail. Or, will an orderly, legal, swift evolution work out our redemption? My sympathies are altogether for the latter peaceful methods. But nobody can tell.

"I believe that in less than ten years we will see great rents occur in the social fabric, almost simultaneously on all points. I believe that in less than twenty years, though it were idle to expect the realization of all we want in that time, profound political, economic, and purely social modifications will have bettered the world considerably, brought a greater total sum of happiness, made the good things of life more evenly, therefore more equitably, divided. I also believe that we soon will abolish the abnormal privilege of inheriting wealth; it will be abolished on the same principle that made us republicans already deny the inheritance of the sceptre. The two things are one. In fact, it is much more absurd that a young Vanderbilt or Castellane, with a possible commercial value of $25 a week,

should inherit millions than it would be to permit the sons of McKinley and Loubet to rule us because their fathers did.

"And inasmuch as with our present mechanical and mental equipment—the accumulation of centuries of common strain, and, therefore, the common property of all men—humanity can now produce exactly twenty times what it can possibly consume, I firmly believe that the outrageous anomaly of human beings wanting in food, clothes, and shelter will disappear early in the twentieth century. The twentieth century will also find means to eradicate the corruption that disgraces the public life of all countries, and probably reserve capital punishment for political knaves alone, sending other criminals to curative establishments and the care of specialists.

"The century will see other wonders; what would be the use of saying more? But it is the duty of all good hearts and honest minds to help towards the accomplishment of these reforms, at least to lend a willing ear to argument, to apply a sincere effort to the study of these questions. And whosoever is content to scoff at the new gospel is a fool; whosoever treacherously stifles it is a criminal."

[**Note by the Editor.**—These views show how deeply Zola thought on social problems and how keenly his heart went out to the earth's toiling millions and to the victims who had fallen under the wheels. Our own opinion is that the law of social evolution would compel, sooner or later, a re-construction of the Western Social life, not by abolishing the parts, but by co-ordinating their functions, and making each subserve the interests of the whole. The evolution of a common ideal of unity is a question of time, but it would be in our view, synchronous with the growth of an ascetic ideal of life, an ideal, namely, that would enable men to look upon life, as a field not for the unrestrained gratification of their desires, but for the development of character and the Soul of men.—*Editor.*]

B. O. FLOWER.

THE SPIRIT OF BACON'S PHILOSOPHY.

Bacon stands at the head of the empirical line of modern philosophers. According to him the object of all philosophy should be the extension of man's power over nature. This object, he saw, was far from being furthered by the scholastic philosophy then prevalent which began with conceptions and principles supposed to be given by reason or revelation and founded on them a disputatious, inexperimental science, barren of any definite or useful results. Consequently Bacon formed a plan for the re-organisation of the sciences which should thenceforth have the above distinct object in view. He begins with a general review of the whole field of the sciences, arranging them under certain heads and suggesting new lines of investigation for some of them. The spirit in which this part of the work is ar[illegible]hed is a proof of Bacon's keen sense of logical propriety. He is going to reconstruct the splendid edifice of philosophy then in a ruinous state, and it is proper that he should begin by an examination into the existing condition of the several parts of the building itself. The way in whieh the review is made is sufficient to show the width of his intellectual grasp. In many parts of this review, we find him in perfect agreement with modern ideas, as in his assertion that God and the soul are scientifically incognisable, but that natural theology is sufficient for the refutation of atheism; in his division of sciences into two clssses, *viz.*, operative and speculative; and in his conception of primary philosophy which develops the conceptions and principles which lie equally at the foundation of all parts of philosophy. Thus, though we are to estimate his service to philosophy and the greatness of his genius mainly from his Doctrine of Method, yet we may even here see the workings of a mind marked for its width of grasp and originality. We detect, indeed, some crudities in his enumerations and classifications, as in his notion of the physical soul, his enumeration of natural magic as an operative science based on Metaphysics, or his ascription of perceptions to all the elements of bodies; but these only go to show that even great minds cannot altogether transcend the limitations imposed by their age and surroundings.

Bacon sees that in order that science may prove useful to man it must be based on experience. According to him scientific knowledge derived through experience is but an image of nature. The one differs from the other only as a reflected ray differs from a direct ray of light. This distinct attribution of objective reality to the per-

ceptions of the senses gives him his place with the empirical philosophers and marks the one-sidedness of his doctrine. But still, we must admire his insistence on the importance of genuine self-acquired knowledge of nature.

At the very beginning of his doctrine of method, Bacon places his doctrine of '*Idols.*' In order faithfully to interpret Nature, the human mind must first of all be freed from the 'idols', or false notions which 'flow not from the nature of the objects to be known, but from man's own nature. These, he mentions, are (*i*) the idols of the tribe, or the deceptive modes of mental representation that are founded in every man's nature, (*ii*) the idols of the cave, or those arising from individual peculiarities; (*iii*) the idols of the forum, or those which are the result of tradition.' The consideration of the subject idols has a truly philosophical importance, for unless the mind is freed of all prejudices and false notions, it cannot see things as they are. An unbiassed and uncorrupted mind is the first requisite to a student of philosophy.

The method which the mind is to adopt after this purification consists in the collection of facts by observation and experiment, and the combination of them by classification and induction. Bacon emphasises the need of great caution in the employment of the process of induction. He attaches much importance to the proper classification of facts, in which the negative instances should be considered along with the positive, and differences of degree should be marked and defined. From the particulars we should rise by generalisation, first to less general and thence to more general propositions, instead of jumping at once from particulars to the most general conclusions. Bacon also demands, a regress from principles to new experiments and inventions. But the fact of his undervaluing the syllogism seems to show that the failed to see that experiments are possible only on the particular propositions obtained by Deduction (*i.e.*, by the syllogism) from the general laws previously established by Induction. This failure we may attribute to the fact that he was carried away by a spirit of protest against the scholastic philosophy of his day. Aristotle and the schoolmen began in philosophy with some principles supposed to be intuitive or revealed, and then by the use of the syllogism they explained the phenomena of nature and mind according to those principles. We can easily see that this is a wrong way of procedure, for where the principles from which one starts are questionable (as with the schoolmen they mostly were) the conclusions deduced from them must be questionable too, how-

ever perfect the line of argument may be. It is this exclusive use of the syllogism in the search after truth which rendered the Aristotelian philosophy so barren of definite and useful results. Bacon inverted the mode of procedure by demanding that from the particular facts gathered by experience we should rise to general principles. Though his method cannot give us absolute certainty yet the conclusions reached by it are useful to man and carry a high degree of probability which produces on our minds almost the same degree of conviction as absolute certainty. It has the further merit of being capable of correction by future observation at any step of its progress, without the previous steps being rendered futile. The best proof of the fertility of Bacon's method is the extraordinary progress of humanity in the arts and sciences during the two centuries and half that it has come into force, as compared with the insignificant contributions towards these departments of the preceding twenty-five centuries during which the scholastic methods were in vogue. The methods of inductive investigation have no doubt reached a greater degree of development in details at the hands of modern thinkers than at the hands of Bacon, but to him belongs the merit of having indicated the main lines of procedure along which others had to work.

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AN EXPOSITION OF THE UNITY OF THE INDIAN PHILOSOPHICAL SYSTEMS, ACCORDING TO VIJNAN-BHIKSHU.—I.

I.—MAX-MULLER'S ESTIMATE OF VIJNAN-BHIKSHU.

Max-Muller observes:—The six systems of Indian philosophy, though they differ from each other and criticise each other, share nevertheless so many things in common that we can only understand them as products of one and the same soil, though cultivated by different hands. They all promise to teach the nature of the soul, and its relation to the Godhead or to a Supreme Being. They all undertake to supply the means of knowing the nature of that Supreme Being, and through that knowledge to pave the way to supreme happiness. They all share the conviction that there is suffering in the world which is something irregular, which has no right to exist and should therefore be removed. The Hindus themselves make, indeed, a distinction between the six orthodox systems. They were

fully aware that some of their systems of philosophy differed from each other on essential points, and that some stood higher than the others. Madhusudana clearly looked upon the Vedanta as the best of all philosophies, and so did Sankara, provided he was allowed to interpret the *Sutras* of *Badarayana* according to the principles of his own unyielding Monism. Madhusudana treats the Samkhya and the Yoga by themselves as different from the two *Mimansas*, *Nyaya* and Vaiseshika, and as belonging to Smriti rather than to *Sruti*. Vijnana-Bhikshu, a philosopher of considerable grasp, while fully recognising the difference between the six systems of philosophy, tried to discover a common truth behind them all, and to point out how they can be studied together, or rather in succession, and how all of them are meant to lead honest students into the way of truth. "In spite of all that has been said against Vijnan-Bhikshu," says the same authority, "I cannot deny that to a certain exetnt he seems to me right in discerning a kind of **Unity behind the variety of the various philosophical systems of India, each being regarded as a step towards the highest and final truth.** He certainly helps us to understand how it came to pass that the followers of systems which to our mind seem directly opposed to each other on very important points, managed to keep pace with each other and with the Veda, the highest authority in all matters, religious, philosophical and moral."

II.—VIJNAN-BHIKSHU'S EXPOSITION OF THE UNITY OF THE INDIAN SYSTEMS.

The exposition of the unity behind the variety of the various philosophical systems, each being regarded as a step towards the highest and final truth, is contained in Vijnan-Bhikshu's preface to the Sankhya-Sutras in his well-known work—The *Samkhya Pravachana-Bhashya.** The following renders into English the substance of the learned commentator's views.

(a).—A GENERAL PROPOSITION.

We read in the Brihadaranyaka Upanishad II-4-5 and IV-5-6 that the Self must be seen, must be heard, must be pondered and meditated on: There "hearing" and the rest are evidently pointed out as means of a direct vision of the Self by which the highest object of man can be realised. To the question, however,—how these three things can be achieved, the following answer is supplied by *Sruti*:— 'It must be heard from the words of the Veda, (श्रोतव्य) it must be

* For a useful edition and translation of Vijnan-Bhikshu's सांख्य-प्रवचनभाष्य, the reader is referred to Professor Garbe's work, which is here followed.

pondered on with proper arguments (मन्तव्य), and after that it must be meditated on continuously (निदिध्यासितव्य). These are the means of vision of the Self.

(b).—RELATION BETWEEN THE SRUTI AND THE SAMKHYA-YOGA PHILOSOPHY.

'Meditated on' (मन्तव्य) is meditated on by means proposed in the Samkhya Yoga philosophy.

The "words of the *Sruti*" declared—(1) the highest object of man, (2) knowledge essential for its attainment; and (3) the nature of the Atman or Self which forms the object of such knowledge.

It was the purpose of Kapila's Samkhya-Sutras—the six-chaptered Manual of Viveka (or the distinction between *Purusha* and *Prakriti, i.e.*, Spirit and Matter in their highest significations) all the arguments which are supported by the *Sruti*.

(c).—A TWO-FOLD PRELIMINARY OBJECTION; SAMKHYA *versus* THE NYAYA AND VAISESHIKA SYSTEMS.

It may, however, be objected that we have already a logical treatment of the aforenamed subjects in the Nyaya and Vaiseshika sytems, rendering the Samkhya superfluous; and further that it is hardly possible that both—the Samkhya as well as the Nyaya and the Vaiseshika—could be means of right knowledge, seeing that each represents the Self in a different form, the Nyaya and Vaiseshika as with qualities, the Samkhya as without those qualities, thus clearly contradicting each other. In other words, according to the objectors, the Samkhya is either rendered superfluous by, or is rendered contradictory of the Nyaya and Vaisesika.

(d). THE TWO-FOLD OBJECTION CONSIDERED: THE SCOPE OF THE SAMKHYA AND OF THE NYAYA AND VAISESHIKA CONTRASTED.

Vijnan-Bhikshu's answer to the objection is that the Samkhya is neither rendered superfluous by the two other systems named, nor do they contradict one another. For they differ in their respective scopes or purposes.

(1).—THE SCOPE OF THE NYAYA AND VAISESHIKA.

The Nyaya and Vaiseshika following the common-sense view that it is the Self that can be an agent, feeling joy and pain, aim, says Vijnan-Bhikshu, *no more than at the first steps in knowledge*, namely at the recognition of the Atman as different from the body, because it is impossible to enter *per saltum* into the most abstruse wisdom, contained in the Samkhya. These *preliminary* schools of the Nyaya and Vaiseshika primarily aim at removing the idea that

the Self or *Atman* is the body; and this part of their teaching is not superseded by the *Samkhya*. For, here we must follow the principle laid down in the *Purvamimansa*, that what a word primarily aims at, that is its meaning. The *Nyaya* simply repeats the popular idea that joy pertains to the Self,—the *Atman*, without referring to any further proofs; and therefore, this portion of the *Nyaya* and Vaiseshika is not to be considered as determining their real scope, as determining what is really essential to them, or what it is that they *primarily* aim at.

(ii).—THE IMPORTANCE OF THE LIMITATION OF SCOPE OF THE NYAYA AND VAISESHIKA.

The knowledge of the *preliminary* schools of the *Nyaya* and Vaiseshika which is attained by simply removing the idea that the Self or the *Atman* is the body is no more than an empirical comprehension of facts, in the same manner as by a removal of the misapprehension in taking a man at a distance for a *post*, there follows the apprehension that he has hands, feet, &c., that is, a knowledge of the truth, yet purely empirical. We read in the Bhagavad-*Gita*, III-29:—

प्रकृतेर्गुणसंमूढाः सज्जन्ते गुणकर्मसु ।
तानकृत्स्नविदो मन्दान् कृत्स्नविन्न विचालयेत् ॥

[*Free translation.*—Those who are subject to the delusion caused by the three Gunas or the constituent primordial forces of Prakriti get attached to the senses and the doings thereof. Let, therefore, who know the whole truth take care not to *distract* such unprepared souls with lesser spiritual capacities, by a mere intellectual presentation of the whole truth, the most abstruse wisdom.]

Thus, we see that the followers of the *Nyaya* and Vaiseshika systems, although they hold to the false belief that the Self or *Atman* could be an agent are not totally in error, but only as not knowing the *whole* truth, as compared with the *Samkhyas* who know the whole Truth. Whence it follows further that the knowledge furnished by the two preliminary schools is only *preliminary*, although very useful; and, *secondly*, that it must lead *step by step* to liberation (मुक्ति) by means of the lower Vaisagya—अपरावैराग्य—the detachment of the soul from the senses;—while the knowledge of the *Samkhyas* only as compared with the lower knowledge is absolute knowledge, and consequently leads not step by step, but straight to liberation by means of the higher *Vaigagya*—the higher detachment—परावैराग्य ।

(iii).—THE SCOPE OF THE SAMKHYA.

The *Nyaya* and the Vaiseshika treat, as we have seen, of the

objects of empirical knowledge, but the *Samkhya* of the highest and the *whole* truth, which is,—that the Self is not an agent, nor an enjoyer of pleasure or pain. For, it follows from the words quoted from the Bhagavad-*Gita* that he only who knows that the Self is never an agent can arrive at the *whole* truth ; and it follows also from hundreds of true Vedic texts:—

(*i*). In Brihad*a*ranyaka, IV-3-22, we read :—'Then he has overcome all the sorrows of the heart.' [thinking that desires, etc., belong only to the internal organ (मनस्).].

(*ii*). In Brihad*a*ranyaka, IV-3-16, we read :—'And whatever he may have seen there, he is not followed (affected) by it.'

(*iii*). In Brihad*a*ranyaka, IV-3-7, we read :—'He, remaining the same (the Self) wanders through both worlds, as if thinking, and as if moving, (but not really)'.

Also in the *Gita*, III-27, we read :—

(*iv*). 'All work is due to the senses, the Gunas of Prakriti ; he only who is deceived by Aham*kara*, or the *limitation* of Self through identification with the senses imagines himself to be the agent.'

Also in V. P. VI-7-22, we read :—

'The Self consists of Bliss (Nirv*a*na) and consciousness only, and is not contaminated by the Gunas. The Gunas are full of suffering not of knowledge, and they belong to Prakriti, not to the Self.'

Whence it follows that the Ny*a*ya and the Vaiseshika are not concerned with the presentation of the *whole* truth—the highest, but only with that portion of it that treats of the difference between the Self and the material body ; and, as Vijnan-Bhikshu points out, this portion of their teaching is not superseded by the Samkhya.

EDITOR.

THE RELIGIOUS STUDENT'S METHODS OF SELF-INSTRUCTION THROUGH A STUDY OF THE INTERNAL NATURE.

In the Bhagavat, Book XI, chapter VII, verses 15—16, we read,

प्रायेण मनुजा लोके लोकतत्त्वविचक्षणाः ।
समुद्धरन्ति ह्यात्मानमात्मनैवाशुभाशयात् ॥
आत्मनो गुरुरात्मैव पुरुषस्य विशेषतः ।
यत्प्रत्यक्षानुमानाभ्यां श्रेयोऽसावनुविन्दते ॥

which translated freely means :—

Here on earth those that are most skilled in Discrimination (between the Permanent Existence and the Changing Forms) are able, generally speaking, to rescue themselves from subjection to worldly attachments.

[**Note.**—In other words, if they possess in any extraordinary degree the faculty of Self-discrimination as aforesaid, they may rescue themselves so with the help only of their inner Guru—the Self or Atman in them. For others, less skilled in Discrimination, the implication is that the inner Guru not being approached direct, He has to be approached through a Mah*a*purusha or Great Soul who has himself realised the inner Guru.]

Translation continued.—The Atman or Self is the instructor of oneself, specially of men (purusha) in matters concerning right or wrong. For, it is Self that discovers what is blessed for itself by methods of direct perception (प्रत्यक्ष) and inference (अनुमान) ।

So, also, in the G*i*ta, Chapter VI-5, 6, we read,

उद्धरेदात्मनात्मानं नात्मानमवसादयेत् ।
आत्मैव ह्यात्मनो बन्धुरात्मैव रिपुरात्मनः ॥
बन्धुरात्मात्मनस्तस्य येनात्मैवात्मना जितः ।
अनात्मनस्तु शत्रुत्वे वर्तेतात्मैव शत्रुवत् ॥

which translated freely means :—

With the help of oneself—(that is with the help of the mind associated with viveka (विवेक) or skilled Discrimination between the Unchanging Substance or Existence and the Changing Forms called in the aggregate by the name of sams*a*ra, (संसार), should one rescue oneself (the Jiva) from the world of attachments (to sams*a*ra). Never should one (by being an अविवेकी, *i.e.*, one not skilled in Discrimination) allow oneself to sink (to the level of stronger and stronger attachments to the changing forms). For, it is one's self (that is, the

mind skilled in Discrimination (and therefore withdrawing from the world of attachments to changing forms) that is the friend of oneself (the Jiva): 'while also (—that is, under opposite circumstances, namely, where the mind is not associated with Discrimination as aforesaid) oneself is the enemy of oneself (that is, the Jiva).

[**Note.**—The reader will notice that the word Atman (आत्मन्) is in the above slokas, used in two different senses—(1) the Jiva; (2) the mind, with Discrimination or without Discrimination as the context requires.]

Translation, continued.—He who by his own *self* (the mind strengthened by the higher Discrimination) has brought under control himself (that is the undiscriminating mind attached to the world of changing forms), to such alone is his own self a friend: But to him who is अनात्म—who has not subgugated the self (that is, the lower or undiscriminating mind), such a self acts inimically like a foe.

In all the above verses, it is to be noted that what is sought to be impressed is that विवेक or Discrimination with the help of the intellect and the understanding, between the world of changing forms [to which the Jiva (in the state of bondage) is attached] and the unchanging substance, (or Existence or Reality or Truth, as the same is variously expressed) is essential to the growth of the spiritual nature in man, to the revelation of the spirit, the Atman, the Self within him.

It is further shown that with a view to this discrimination, the help of the mind (the intellect and the understanding) is to be sought; for mind, as is shown above, has two sides or faces, the outer and the inner sides, directions, or faces, the अन्तर्मुख and, the बहिर्मुख; the outer face being that which looks primarily towards the world of changing forms and gets attached to it. The other face (अन्तर्मुख) is that which is turned towards the world of the Eternal Substance, the Eternal, Unchanging Existence—Isvara or Brahman.

The third point sought to be impressed is that one who is very well skilled in the kind of Discrimination to which the Srimad Bhagavat refers could rescue himself with the help of his own Self, the *inner Guru* in every man, the Isvara who lives in the heart of every man. Such a person, possessing this extraordinary power of the *Self*-Discriminating Spiritual Faculty, is classed among the highest divisions of

The implication is that for those that do not possess the faculty of Spiritual Discrimination—*in a very high degree*, it is necessary not only to practise such Discrimination as is possible; but also to seek to approach the Inner Guru with the help of a Great Soul, *i.e.*, one who has realised the Inner Guru (Isvara), himself, and who, therefore, stands between *Isvara* and the undeveloped, बहिर्मुखी, undiscriminating, or unskilled spiritual aspirant; but who must be, for all practical purposes, the Isvara Himself to the disciple.

EDITOR.

THE ASCETIC'S METHODS OF SELF-INSTRUCTION THROUGH STUDY OF EXTERNAL NATURE.

[*From the Srimad-Bhagavatam.*]

I.—The Earth as Teacher.—Though oppressed by the elements, the Earth does not deviate from her path as she knows that they are only guided by the divine Law. This forbearance, I* have learned from the Earth. I have learned from the mountain (which is part of the Earth) that all our desires should be for the good of others and that our very existence should be for others and not for self. I have learned entire subordination to other's interests from the trees (also part of the Earth).

II.—The Vital Air (प्राणवायु) as Teacher.—I have learned from the Vital Air that one should be content only with such things as keep up the life *only* and that one should not care about the objects of the senses. [The sage should keep up his life so that his mind be not put out of order and his mental acquisitions lost; at the same time he should not allow himself to get attached to the objects of the senses; so that his *speech and mind* be not disturbed.]

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* The speaker here alluded to is a wandering ascetic who having given up all earthly attachments roamed about like a child through the Earth with perfect peace within himself. The teachings contained in this article, it must always be remembered, are al adapted to the work in life of an ascetic, an ascetic being defined as one who (whether he wears the ascetic's robe or not) has not much of worldly desires to gratify, and who is, therefore, fit to receive the light of Higher Truths. The householder, on the other hand, has many unsatisfied cravings for lower enjoyments, and although he is bound by his *dharma* to practise self-restraint, he is not to follow the ascetic in his efforts at a lofty and fuller scale of renunciation of भोग। The ascetic and the householder, standing as they do in higher and lower heights of spiritual growth, must not work along the same lines, *i e.*, in identical ways in this life; but the householder could and must finally reach the level of the ascetic, if he practises his स्वधर्म।—The passages are taken from Book XI, Chaps. 7-9 of the Srimadbhagavatam. We have taken the liberty of adopting the Translation by Babu Purnendu Narayan Singh given in his "Bhagavat-Purana: A Study," priced at Rs. 2-8, which has been very helpful to us in our studies and which we could confidently recommend to the readers of this Journal.—*Editor.*

III.—The Outside Air as Teacher.—Though placed in the midst of objects having different properties or qualities, the wise man should not allow himself to get attached to them. This I have learned from the outside air. The soul enters the body and the bodily attributes seem its own; but it is not so. The air is charged with smell; but the smell is no attribute of air.

IV.—Space as Teacher.—The Spirit (*Atman*) is all-pervading and is not affected by the body and the bodily attributes. This I have le[illegible]ue. *Space* (आकाश) which, though all-pervading, seems to be conditioned by the clouds and other objects.

V.—Water as Teacher.—Transparency, agreeableness, and sweetness I have learned from *Water*. The sage purifies others like water.

VI.—Fire as Teacher.—Powerful in knowledge and glowing with asceticism, the sage receiving all things does not take their impurities even like fire. Fire eats the sacrificial ghee when offered to it and consumes the sins of the offerer. The sage eats the food offered to him by others, but he burns up their past and future impurities. Fire is one, though it enters various sorts of fuel. So one Spirit (*Atma*) pervades all beings, however different they may appear by the action of Avidya (Nescience, Ignorance).

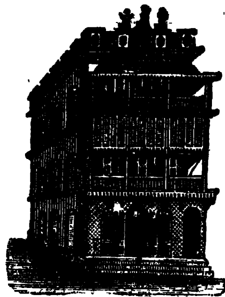
VII.—The Moon as Teacher.—Birth, death, and other affections are states of the body, not of the Spirit (*Atma*). The moon looks full, diminished, and gone, though it is the same moon in all these states.

VIII.—The Sun as Teacher.—The Sun draws water by its rays and gives it all away in time. So, the sage takes in order to give, and not in order to add to his own possessions. The Sun reflected on different surfaces appears to the ignorant as many and various. Even so, the Spirit (*Atman*) in different bodies appears, to the deluded as many and various.

IX.—The Pigeon as Teacher.—Too much attachment or affection is bad. This I have learned from a pair of pigeons. They lived in a forest. One day they left their young ones in their nest and went about in search of food for them. When they returned, they found the young ones in the net of a hunter. The mother had too much affection for the young ones. She fell into the net of her own accord. The father also followed suit and the hunter was pleased to have them all without any exertion of his own.

X.—The huge Serpent as Teacher.—The huge Serpent (Ajagara) remains where he is and is content with whatever food comes to him.

[*To be continued.*]



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Letters Worth Reading by the

JODHPUR, *16th April* 1899.

H. H. Maharajah Dhiraj Lt. Colonel Sir Maharajah Sir Sri Protab Sardar Singh Bahadur of Marwar, Jodhpur, G. C. M. I., says Kaviraj N. N. Sen's Keshranjan Oil I have used, it cools the brain exceedingly well and promotes the growth of hair. It has a sweet fragrance also.

Maharaja Sir Narendra Krishna Bahadur, K. C. S. I., of Sobhabazar Rajbati, says:—It keeps the head and the brain cool, . . . is free from foreign ingredients.

Maharaja Indra Narain Bahadur of Nepal says:—I was satisfied with its superior fragrance and tendence to promote the growth of the hair, * * * is the best of its kind.

Rajah Sir Sourindra Mohun Tagore, Kt., C. I. E., Music Doctor (Oxon), &c., &c., of Pathuriaghata Rajbati, says:—Its fragrance is sweet and lasting.

Rajah Peary Mohun Mookerji, C. S. I, M.A., B.L., &c., &., of Utterpara, says: It would stand comparison with any hair oil, native or foreign * * * Its delicious perfume is one of its best recommendations.

Maharaj-Kumar Prodyot Kumar Tagore, son and heir to Maharajah Sir Jotindra Mahan Tagore, K. C. S. I, says:—It has fine aroma and cooling properties: * * * am pleased with it.

Maharaj-Kumar Ambika Prosad Sing of Gidhour, says:—It is the best of the kind I have seen.

Rasaldar Major Sardar Bahadur Bahauddin-Khan, C.I.E., (C.I.H.), Native A. D. C. to His Excellency the Viceroy and Governor-General of India, says:—It is beautifully scented and invigorates the hair, * * * is really very useul and keeps the head cool.

Surgeon-Major B. K. Basu, M.D.C.M., I.M.S., Gilchrist Scholar, and Medical Officer, 4th Prince Albert Victor's Rajupt Regiment of Bengal Infantry, says:—It has a pleasant smell, which is lasting: * * * is cooling to the head.

Honourable Narendro Nath Sen, the well-known Editor of the *Indian Mirror*, says:— * * * I cannot speak too highly of its virtues &c., &c., &c.